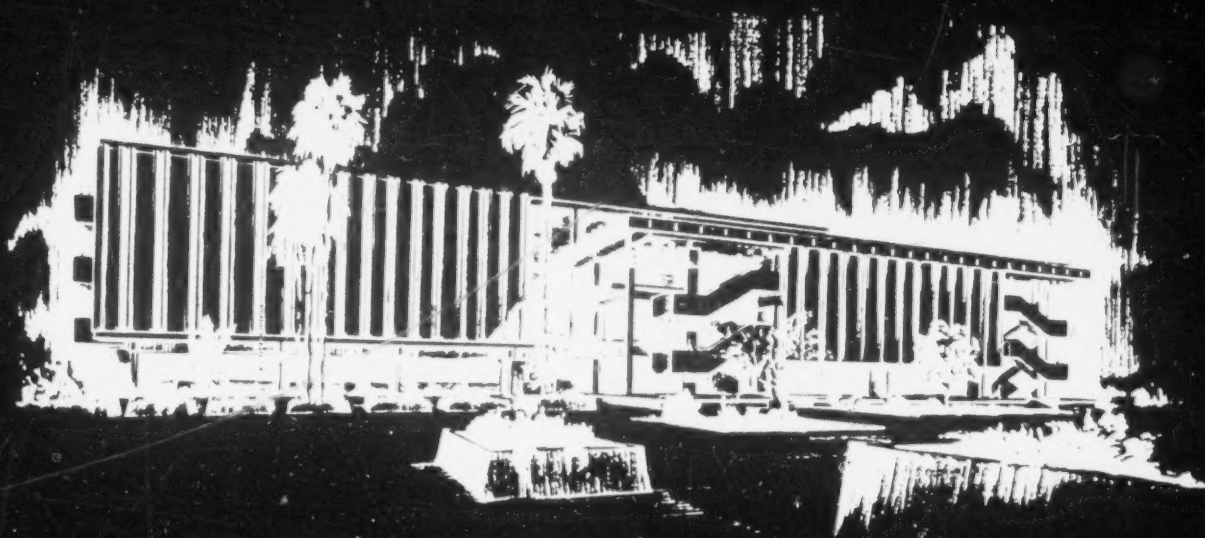


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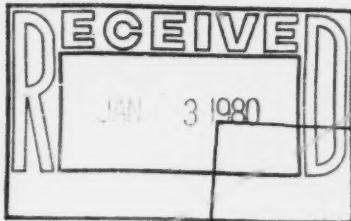
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Report To The Reader

The College of Business Administration at Arizona State University is fortunate to have among its faculty a number of individuals whose research not only contributes to the general body of knowledge, but who consistently seek out information that can be utilized in a practical day-to-day manner by the business person.

This issue of *Arizona Business* features two articles based on this kind of applied research; both are timely and relevant to the business community. The articles are concerned with various aspects of personnel development and are designed to inform managers about trends and new developments in this prominent field.

The first article, "The Role of Personnel Administration," focuses on very specific functions that can be performed by the personnel department of an organization. The article takes into consideration the fact that executives, line managers, and personnel directors all may view the personnel role differently. The authors, Harold C. White and Michael N. Wolfe, surveyed all three groups with respect to forty items that range from recruiting to community service to collective bargaining.

The results showed a considerable increase in support for personnel administration and increased emphasis on such activities as Affirmative Action/EEO functions. Executives are placing greater emphasis on the personnel director as a planner and a professional and less emphasis on the housekeeping function.

The complex area of fringe benefits is reported in the second article, "Employee Benefits in Arizona: An Update," by Michael N. Wolfe, William B. Werther, Jr., and George Bohlander. The authors report increased emphasis on fringe benefits and a corresponding increase in the complexity of those benefits. Businesses that wish to remain competitive in the hiring and retention of employees will find this article especially informative.

Such benefits as dental insurance, which was hardly known a decade ago, are now on the increase and it is expected that legal aid insurance may follow in a similar path of acceptance. Group homeowner and automobile insurance are also likely candidates for inclusion in the fringe benefit package. Employee assistance programs have shown a marked increase with such services as alcoholic and drug rehabilitation service aimed at troubled employees and their families. Japan has been a leader in these kinds of family support services, and many American firms seem to be heading in the same direction.

The Role of Personnel Administration

HAROLD C. WHITE
MICHAEL N. WOLFE

The functions of management are planning, organizing, staffing, directing, and controlling. As just one of those functions, staffing is a complex task that involves activities to obtain, retain, and develop employees — activities typically assigned to the personnel department, which is designed to assist management in performing their duties, as is true of all staff units. This article reports the reactions of managers and personnel directors as what they believe their personnel departments are doing and what they believe they should be doing.

Appreciation of the importance of personnel administration has been growing for several years, mainly due to several factors: inflation, pressures for wage increases, requirements for skilled employees, continued demands from labor unions, concerns about declining employee loyalty, and greater knowledge and awareness of employee needs and motivations. These concerns are compounded by growing government legislation in

such important areas as wages, equal employment, health and safety, and working hours. Firms are exhibiting a greater realization of the need for "people experts".

In one study, 91 percent of the responding personnel directors reported more involvement in organizational decision-making as a result of the pressure of social legislation.¹ The same study reports the growing status of personnel directors with 25 percent of them classified as company officers. In another study,² it was reported that the size of the average personnel department, in just two years, had increased 37 percent, with an average budget increase of over 33 percent.

In order for the personnel department to make a meaningful contribution, there must be support from executives; an appreciation of the potential of personnel administration by line managers; and a knowledgeable, competent, and committed personnel staff that is alert to the needs of the organization and its members.

Personnel departments may determine policy, give advice, perform service, or exert control in the various functions in which they are involved. This article explores both what they are doing as well as what they should be doing as seen by executives, line managers, and personnel directors.

Harold C. White is Professor of Management, College of Business Administration, Arizona State University. Michael N. Wolfe is Assistant Professor of Management, ASU.

THE ARIZONA STUDY

Five years ago, a study was conducted to determine the perceptions of personnel administration practices as reported by senior executives and line managers.³ Respondents were all employed by firms in the Phoenix metropolitan area. Twenty-nine personnel functions were included in the questionnaire.⁴ For each function, the respondents were requested to indicate which of the activities — policy, advice, service, control — they

wanted the personnel department to perform and which they believed should receive increased attention.

The results reported here are an expansion of the previous study. All senior personnel directors from Arizona who are members of the American Society for Personnel Administration were surveyed. Each was asked to complete a forty-item questionnaire. The personnel directors were also requested to forward questionnaires with the same items to their immediate superior and to two line managers of units served by their personnel department. Of the personnel directors contacted, responses were received from representatives of twenty-six organizations for a 38 percent response.

Instructions stated:

In the following list of personnel administration activities, please check the responsibilities your personnel department *now has* in these activities. More than one responsibility (policy, advice, service, control) may be marked for any personnel activity as appropriate. The following definitions apply:

Policy: Helping to make policy statements for the activity.

Advice: Making suggestions and counseling managers who carry out the activity.

Service: Actually carrying out the activity.

Control: Measuring and evaluating the performance and results of the activity.

None: Not involved in any way with the personnel activity.

The second portion of the questionnaire stated:

The following is an identical list of the activities you have just completed. This time indicate the responsibilities which you believe your personnel department *should have*. The same definitions apply.

Table 1 lists the industries represented by the respondents to the survey. Table 2 indicates the sizes of the firms by number of employees. Of those responding to this question, the greatest number employed less than 250 employees and nearly 60 percent employed fewer than 100. Three firms, representing 13.7 percent

TABLE 1

RESPONSES BY INDUSTRY

Mining	1
Construction	1
Food Processing	1
Primary Metals/Metal Working/Fabricating	1
Electrical/Electronics Mfg.	1
Retail	5
Finance/Insurance	8
Other	4
No response	1
TOTAL	23

Source: Survey conducted by the authors, 1979.

TABLE 2

RESPONSES BY EMPLOYMENT SIZE

Less than 250 employees	6
250-499 employees	4
500-999 employees	3
1,000-2,499 employees	3
2,500-9,999 employees	3
10,000 or more employees	3
No response	1
TOTAL	23

Source: Survey conducted by the authors, 1979.

of the respondents, employed 10,000 or more. Four firms were identified as having at least some of their employees, ranging from less than 20 percent to nearly 80 percent, represented by a labor union.

THE ROLE OF PERSONNEL ADMINISTRATION

Results of the study in part are shown in Table 3. The numbers are the percentage responses of the respondent groups indicating their desired involvement of the personnel department in activities (policy, advice, service, and control) for each of the forty functions. The respondent groups were *executives* to whom the personnel director reports, *line managers* serviced by the personnel department, and *personnel directors* themselves. The column *none* shows responses of those indicating the belief that the personnel department should not be involved with the function in any way. The column for *rank* indicates the relative weighting of importance given each function by the three groups. The personnel functions are listed in the table in the order of the personnel directors' desired order of preference.

As noted at the bottom of the table, a greater percentage of both line managers and personnel directors want the personnel department to provide *service* for the various functions; the average response by the managers for that function was 48.7 percent and by the personnel directors 63.7 percent. The second highest responses by these two groups was for *advice*, with responses of managers 45.6 percent and personnel directors 61.5 percent. Third for both groups was *policy*, with 33.3 percent for managers and 60.0 percent for personnel directors. This is in contrast to the executive evaluations, which ranked *policy* first, 55.4 percent; followed by *service*, 52.3 percent; and *advice*, 51.6 percent. Each group overall rated *control* the lowest: executives, 42.7 percent; managers, 27.7 per-

TABLE 3

DESIRED FUNCTIONS AND ACTIVITIES OF THE PERSONNEL ADMINISTRATION DEPARTMENT
(Percentage)

Function	Policy			Advice			Service			Control			None ^a			Rank ^b		
	Line Per.			Line Per.			Line Per.			Line Per.			Line Per.			Line Per.		
	Execs.	Mgrs.	Dir.	Execs.	Mgrs.	Dir.	Execs.	Mgrs.	Dir.	Execs.	Mgrs.	Dir.	Execs.	Mgrs.	Dir.	Execs.	Mgrs.	Dir.
Affirmative Action/EEO	88	57	87	71	54	83	77	69	78	77	57	87	0	3	0	1	1	1
Wage/Salary Administration	77	37	87	77	63	83	71	51	83	77	40	78	0	9	4	2	10	2
Employment Selection	59	29	78	88	71	83	59	46	87	47	26	65	0	3	0	17	18	3
Recruiting	71	40	78	59	34	65	88	91	96	65	34	74	6	0	0	6	3	3
Human Resources Planning	77	49	83	71	66	83	47	43	74	59	31	70	12	6	0	19	9	5
Training/Development	71	40	78	65	66	87	65	54	83	65	34	70	6	6	4	14	7	6
Grievances	65	40	78	77	66	78	53	43	78	65	20	65	0	9	4	14	22	7
Pay Structure Design	71	40	78	71	66	57	82	63	87	71	37	74	6	0	4	3	2	8
Orientation	71	43	70	53	29	70	82	77	87	65	40	61	0	0	0	10	6	9
Discipline	65	37	74	77	80	87	29	34	57	47	26	70	6	3	4	27	13	10
Insurance Benefits	65	31	74	47	26	52	77	74	83	59	37	74	6	9	0	19	23	11
Discharges	71	37	70	77	80	87	35	34	57	59	26	65	6	3	0	23	13	12
Performance Appraisals	82	40	78	77	77	83	41	26	52	71	40	74	0	9	9	10	5	13
Job Counseling	71	40	65	65	49	70	88	74	87	53	31	57	0	3	4	6	4	14
Vacations/Leaves	82	49	83	53	60	74	47	46	61	53	29	61	6	6	4	26	11	14
Promotions	77	43	65	65	83	96	47	14	57	53	20	52	6	11	0	23	26	16
Retirement	77	40	78	53	40	65	77	54	74	65	31	57	0	3	4	9	21	16
Job Analysis/Job Description	77	40	65	71	57	74	53	49	57	65	29	70	6	6	4	14	18	18
Personnel Research	65	31	65	47	29	39	77	77	91	59	40	65	6	3	4	19	13	19
Transfers	82	37	65	77	74	83	59	37	57	65	20	52	0	9	4	4	23	20
Wage Survey	71	43	61	47	31	39	94	86	91	65	34	61	0	3	4	6	4	21
Labor Market Survey	65	43	51	53	23	48	82	77	83	59	49	65	6	6	0	17	8	21
Job Design	47	29	52	71	63	87	18	29	39	41	17	61	12	11	4	32	28	23
Morale Surveys	59	31	61	47	34	48	82	66	70	59	34	61	6	6	13	22	23	24
Selection Testing	65	37	65	47	34	39	88	66	78	65	31	65	0	3	22	13	20	25
Personal Counseling	77	34	44	53	49	65	88	71	83	59	26	35	6	3	4	10	12	26
Education Tuition	77	34	44	53	49	65	88	71	83	59	26	35	6	17	13	28	29	28
Layoffs	71	34	61	59	57	61	35	37	57	47	14	44	6	3	4	23	13	29
Incentive/Merit Programs	71	46	65	65	57	61	47	46	52	65	31	52	12	6	26	23	13	29
Safety/OSHA	53	26	52	47	37	61	41	34	52	53	20	44	24	34	22	31	33	30
Community Service (UF, etc.)	47	14	48	79	26	57	59	51	61	47	20	39	12	23	22	51	31	31
Suggestion Systems	53	29	44	41	29	44	65	17	48	41	17	39	12	17	22	50	34	32
Public Relations	47	11	39	47	23	57	35	37	39	35	20	35	24	37	35	35	36	33
Employee Newsletter	47	17	44	59	31	39	47	37	48	53	26	30	12	26	39	29	32	34
Recreation/Social	41	17	39	53	31	48	47	37	35	29	11	26	18	29	35	34	35	35
Tickets; Athletic, Social	24	11	22	29	9	30	47	31	30	24	14	22	29	46	48	36	38	36
In-house Medical Service	35	26	35	18	17	13	35	46	26	24	29	26	41	29	57	38	30	37
Collective Bargaining	24	17	17	24	17	22	18	51	22	24	11	22	41	43	61	39	37	38
Buildings/Grounds Security	29	20	17	29	23	22	41	20	17	24	17	13	35	63	61	37	39	39
Food Service	12	14	4	12	14	4	18	14	9	12	9	0	59	63	83	40	40	40
AVERAGE RESPONSES	62.0	33.3	60.0	55.6	45.6	61.5	58.5	48.7	63.7	53.4	27.7	54.5	10.8	14.3	16.4			

^aIndicates the personnel department should not be involved in this activity at all.

^bRelative weighting of importance given each function. The personnel functions are listed in the table in order of the personnel directors' desired order of preference.

Note: The respondent groups were executives to whom the personnel director reports, line managers serviced by the personnel department and personnel directors themselves.

Source: Survey conducted by the authors, 1979.

cent; personnel directors, 54.5 percent. Not surprising, but noteworthy, is the higher percentage of responses by personnel directors for each of the four activities.

Contrasts are noted between this survey and the survey reported five years previously. Of considerable importance to the future of personnel administration, the executives responding to the present study were much more inclined toward personnel department involvement in policy (1974 — 41.0 percent; 1979 —

55.4 percent); service (1974 — 37.4 percent; 1979 — 52.3 percent), and control (1974 — 28.0 percent; 1979 — 42.7 percent). Comparing data not reported in the earlier article shows that the personnel directors in the present study are now more supportive of their involvement in service (1974 — 49.3 percent; 1979 — 63.7 percent) and control (1974 — 37.4 percent; 1979 — 54.5 percent), with continued strong interest in policy and advice.

In contrast, the line managers in the current study are less enthusiastic toward personnel department involvement in all of the functions except service than were the managers surveyed previously. The line managers reported a marked lower response to advice, control, and especially policy (1974 — 49.6 percent; 1979 — 33.3 percent), but with an increase for service (1974 — 40.9 percent; 1979 — 48.7 percent). In addition, in the earlier study the line managers indicated a stronger desire than the executives for personnel department involvement in each of the activities. In contrast, the executives in the present study responded more positively than the managers to each of the activities.

The earlier study reported that, "It is clear that for most activities, less than 50 percent of either the executives or line managers indicated a desire for personnel department involvement." A review of Table 3 indicates that the statement remains true for the line managers, but not for the executives. The earlier study showed that there were only 20.7 percent of the functions for which the majority of executives felt that the personnel department should be involved in a policy-making role; in the present study at least half the executives expressed the desire for personnel department involvement in policy-making for 75 percent of the functions. However, in the previous study 41.4 percent of the line managers expressed the desire for personnel involvement, but only one function received such support in the present study.

A similar pattern holds for *advice*. The previous study showed 51.7 percent of the functions in which the advisory role received support from at least half of the executives, and 71.0 percent of the line managers. In the present study, 65 percent of the functions had executive support for the advisory role of the personnel department; 42.5 percent of the functions had similar support from managers. There is a strong increase in emphasis on *service* by both executives (1974 — 27.6 percent; 1979 — 57.5 percent) and line managers (1974 — 31.0 percent; 1979 — 55.2 percent).

For *control*, at least half of the executives felt personnel should exercise control in 65 percent of the functions in the current study, while only 10.3 percent of the functions were considered appropriate for control from the personnel in the earlier study. In the current study the line managers felt personnel should exercise control in only one function — Affirmative Action/EEO — and none of the functions, in the previous study.

For each activity, the personnel directors express strong interest in being involved. At least half of the

personnel directors indicate the desire for involvement in *policy* for 75 percent of the functions, in providing *advice* for 70 percent of the functions, 75 percent offering *service* in, and exercising *control* for 67.5 percent of the functions.

PRIORITIES

There are some agreements and some disagreements among the groups of respondents as to the priorities that should be given by the personnel department. Of the ten functions which the personnel directors consider to be most important, seven of these functions are also selected by the managers, but only five were also considered most important by the executives. The five functions that are agreed by all three groups as being among the top ten in order of importance are Affirmative Action/EEO, Wage and Salary Administration, Recruiting, Pay Structure Design, and Employee Orientation.

At the opposite extreme, each group of respondents agreed on nine of the ten choices as being of least importance for involvement by the personnel department: Community Service, Suggestion Systems, Recreation/Social, Public Relations, Tickets for Athletic/Social Events, In-house Medical Service, Collective Bargaining Negotiations, Buildings/Grounds Security, and Food Service. These activities are given both low priorities and low ratings for personnel department involvement.

A number of possible explanations can be given for these low evaluations. Some of these functions, such as Public Relations, are not typically understood to be truly related to personnel administration. Collective Bargaining would apply only to the firms reporting labor union membership among the employees. Some functions, such as providing tickets to athletic and social events, can be viewed as being of little importance. Many respondents may agree with one author who recently placed cafeteria service, security guards, and recreation councils, in the same category as receptionists and typing pools. These are found in some personnel departments, especially in smaller organizations, in what the author called an "illogical connection" and labeled them collectively.³

The executives place relatively less emphasis than do the line managers and personnel directors on Discipline, Discharges, and Vacations and Leaves, and more attention on Education Tuition and Transfers. The line managers give relatively more attention to Personal Counseling and Incentive and Merit programs. The per-

sonnel directors give more attention to Employment Selection and Grievance, and less attention to Wage Surveys and Personal Counseling.

Some important changes have occurred during the period between the studies of 1974 and 1979. Perhaps most noticeable is the increased emphasis on Affirmative Action/EEO, listed twelfth, sixth, and fourth respectively by the executives, line managers, and personnel directors in the earlier study, but listed first by all three groups in the current study. Wage and Salary Administration has taken on more importance to the executives, as have Promotions, Transfers, and Counseling. While the relative importance of various functions has changed between the two surveys, of greater significance is the evidence that nearly all functions are seen by executives as taking on greater importance and seen by the personnel department as needing greater involvement.

It would appear that the executives are placing greater emphasis on the personnel director as a planner and a professional, and less emphasis on personnel administration as a housekeeping function. Line managers appear to be placing more emphasis on personnel administration as a helping role to management, and less emphasis on the housekeeping and maintenance roles.

The responses suggest considerable differences in perceptions of, and desires for, personnel administration between the three groups. Personnel directors perceive themselves as doing more presently and desiring to do more in almost all of the functions, than is perceived or desired by either the executives and line managers. There is close agreement between the desired performance of personnel administration as indicated by the personnel directors and that indicated by the executives. This general agreement, coupled with the marked increase in support of personnel administration by the executives, indicates that the status and influence of the personnel department has increased markedly in the past few years, and that the personnel director is in an excellent position to make a positive contribution to the organization.

There is no clear explanation for the decline of responses regarding perceptions and desires of the line

managers for personnel administration involvement. Differences in respondents between the two studies could certainly be an explanation. Certainly a marked difference exists in the actual involvement of the personnel department in the functions surveyed between the personnel department and the line managers — the managers believing that the personnel department is less involved in all functions and activities than is reported by both the personnel directors and the executives. This suggests a lack of clear communication between the personnel department staff and the units they serve, and between the executives and the managers they supervise. Regardless of the differences in perception and the differences in desired personnel administration involvement as expressed by the line managers, these same managers express a desire for the personnel department to become more actively involved in each of the activities.

CONCLUSION

The personnel departments are in a more favorable position than reported in the previous study, when there was much less support for personnel administration. Compared to the previous study, executives are more open to personnel department involvement in policy recommendations. They perceive the personnel department as a stronger resource to the organization by providing expert service and expert advice. The line managers are also more accepting of personnel administration service.

As was found in the earlier study, personnel directors, executives, and managers can differentiate very clearly between the various functions and activities of personnel administration. It is not realistic to lump all personnel functions together and conclude that managers want or do not want personnel department involvement. Each function requires separate consideration. Neither is it appropriate to state that management wants or does not want the personnel department to perform a given function, but rather, it is necessary to identify what kind of activities — policy, advice, service, and/or control — are wanted for each function.

¹Walter E. Greene. "Visible Management Planning." *The Personnel Administrator*. 22 (January 1977): 35-37.

²"Editor to Reader: The New Thrust in Personnel." *Personnel Journal*. 58 (May 1979): 278, 280.

³Harold C. White and Robert E. Boynton. "Role of Personnel: A Management View." *Arizona Business*. 21 (October 1974): 17-21.

⁴Dalton E. McFarland. *Cooperation and Conflict in Personnel Administration*. (New York: American Foundation for Management Research, 1962) p. 12.

⁵Frank O. Hoffman. "Identify Crisis in the Personnel Function." *Personnel Journal*. 57 (March 1978): 126-132, 162.

Employee Benefits in Arizona: An Update

MICHAEL N. WOLFE
WILLIAM B. WERTHER, JR.
GEORGE W. BOHLANDER

Fringe benefits are an important aspect of an organization's compensation program. Indeed, as inflation continues to erode purchasing power, the tax-free aspects of fringe benefits become more attractive to employees. The latest nationwide survey, conducted by the Chamber of Commerce in 1977, found that the average company spends \$2.26 per hour for each employee to provide fringe benefits, pays \$4,692 per year per employee for fringe benefits, and devotes 36.7 percent of payroll in the form of fringes.

All of these figures have increased since the last nationwide survey. The western states, which include Arizona, were found to average 36.4 percent of payroll for benefit payments.¹

These figures point out the need for managers and compensation specialists to examine their fringe benefit structure in order to remain competitive in the labor

market and help control their payroll costs. To assist Arizona employers, the second Annual Employee Benefit survey was conducted by the authors in mid-1979. The results of this survey should be of particular interest to those who are responsible for shaping organizational compensation programs. Comparisons are made with the first Arizona survey conducted in mid-1978, which was reported in the October, 1978, issue of *Arizona Business*.

SCOPE OF THE SURVEY

The survey is intended to be a comprehensive examination of current fringe benefit packages of Arizona employers. Due to the broad range of different job classes, this research makes no attempt to report on wages and salaries in Arizona. Readers with interests in specific pay levels would find the Arizona Department of Economic Security statewide salary services of interest.

Questionnaires were mailed to 649 major employers throughout Arizona. Included in the sample were:

- All manufacturers with 30 or more employees
- All major governmental entities (including all county governments, all governments of cities with a population of 25,000 or more, and the Arizona State Personnel Commission)
- All major public utilities
- All major health care institutions
- All major financial institutions

The October, 1978, issue of Arizona Business reported the findings of a statewide survey of employer-provided fringe benefits. This update, which gives the results of a similar survey conducted this year, describes the frequency and scope of the most commonly offered employee benefits among major Arizona employers and makes comparisons with last year's survey.

Michael N. Wolfe, William B. Werther, Jr., and George W. Bohlander are all faculty members in the Department of Management, College of Business Administration, Arizona State University.

*Other employers (construction, retail and wholesale, printing, newspapers, mining, rehabilitation facilities, transportation and restaurant chains).

A single mailing of the four-page questionnaire produced 161 usable replies for a response rate of approximately 25 percent, which is a representative sample of the original 649 firms included in the survey. Table 1 shows that the respondents were divided almost equally between manufacturers and all other types of employers. Table 2 gives a distribution of respondents by employee size. The responses were divided almost evenly between those with less than 250 employees and those with 250 or more employees.

TABLE 1

DISTRIBUTION OF RESPONSES BY TYPE OF EMPLOYER

Type	Number of Responses	Percentage of Responses
Manufacturers	81	50.3
Governments	18	11.2
Service	33	20.5
Other	26	16.1
No Response	3	1.9
Total	161	100.0

Source: Developed by the authors from 1979 survey.

TABLE 2

DISTRIBUTION OF RESPONSES BY NUMBER OF EMPLOYEES

Number of Employees	Number of Responses	Percentage of Responses*
Under 100	43	26.7
100-249	39	24.2
250-1000	44	27.3
over 1000	35	21.7
Total	161	99.9

*Totals may not equal 100 percent due to rounding.

Source: Developed by the authors from 1979 survey.

SURVEY RESULTS

The questionnaire sought information about seven areas of employee benefits. Each of these areas is discussed in the respective sections: (1) pay for time not worked, (2) employee leave policies and benefits, (3) employee services, (4) employer provided insurance, (5) deferred compensation benefits, (6) special benefits, (7)

miscellaneous benefits and emerging fringe benefit developments.

Pay for Time Not Worked

Pay for time not worked includes benefits that allow the employee to be paid even though the individual is not working. Results of this survey appear in Table 3.

Column I of Table 3 reveals the percentage of employers that give various time-off benefits to all their employees, including both managers and nonmanagers. Columns II and III show the percentage of respondents that give these benefits exclusively to managers (Column II) or nonmanagers (Column III). Column IV shows the percentage of organizations that do not offer these time-off benefits to any of their employees — managers or nonmanagers.

As shown in Column I, over 78 percent of all the survey participants pay both managers and nonmanagers for rest breaks. The second most common benefit for both groups is pay during absences due to illness: 71.4 percent of all employers follow this practice for both managers and nonmanagers. Over 56 percent of the employers provide for some paid wash up/clean up time, and nearly 56 percent of the organizations offer some severance pay. As might be expected, the distinctions between managers and nonmanagers is most noticeable for these wash up/clean up and severance pay benefits, since wash up/clean up time is most closely associated with production workers, and severance pay is usually given only to managers.

Fewer employers paid for meal time: 70.8 percent do not offer this benefit. Likewise, even fewer organiza-

TABLE 3

PAY FOR TIME NOT WORKED (in percentages)*

Type of Time Off	Benefit Given To:				Total
	I Both Managers and Non-managers	II Only Managers	III Only Non-managers	IV Not Provided	
Rest Break	78.3	.6	14.3	6.8	100.0
Sick Pay	71.4	14.9	3.1	10.6	100.0
Wash Up/Clean Up	34.8	0.0	21.7	43.5	100.0
Severance Pay	27.3	26.1	2.5	44.1	100.0
Meal Time	13.0	7.5	8.7	70.8	100.0
Lay Off Pay	8.1	1.9	1.9	88.2	100.1

*Totals may not equal 100 percent due to rounding.

Source: Developed by the authors from 1979 survey.

tions have layoff pay; only 12.8 percent listed this benefit.

Another important benefit that provides time off with pay is holidays. Table 4 gives the complete holiday listing, which ranges from zero to sixteen holidays. The average number of paid holidays was eight. This number has not changed from last year's survey result.

The survey also asked the most common practice of paying for holidays when employees were required to work on those days. For about one-third of the respondents, the most common basis for pay on holidays was time-and-a-half (32.3 percent). The second most frequently mentioned payment method was double time (26.1 percent). Other payment methods stated in descending frequency were two-and-a-half time (15.5 percent), straight time (11.2 percent), compensatory time off (6.2 percent), and triple time (3.9 percent).

Length-of-service requirements for earning vacation time were also investigated. Table 5 presents the three most common responses to vacation eligibility for managers. The most frequently mentioned service requirement for one week of paid vacation was no waiting time; for two weeks — one year; for three weeks — 10 years; for four weeks — 15 years; for five weeks — 25 years; for six weeks — 30 years. Nevertheless, it should be noted that the most frequent response to four, five, and six weeks vacations was that the firms did not offer this many weeks of paid vacation.

TABLE 4

SURVEY RESULTS ON HOLIDAY SCHEDULES

<i>Number of Paid Holidays</i>	<i>Number of Respondents</i>	<i>Percentage of Respondents</i>
0	2	1.2
1	0	0.0
2	1	0.6
3	1	0.6
4	2	1.2
5	5	3.1
6	16	9.9
7	22	13.7
8	36	22.4
9	25	15.5
10	31	19.3
11	13	8.1
12	4	2.5
14	2	1.2
16	1	0.6
Total	161	99.9

Source: Developed by the authors from 1979 survey.

Table 6 presents the same vacation information for nonmanagers. The most frequently mentioned service requirement for one week of paid vacation was one year; for two weeks — one year; for three weeks — 10 years; for four weeks — 15 years; for five weeks — 25 years; and six weeks — 30 years. Again, the most frequent response for four, five, and six weeks of paid

TABLE 5

MANAGERIAL VACATION REQUIREMENTS

<i>Number of Weeks of Vacation</i>	<i>Most Common Requirement</i>		<i>Second Most Common Requirement</i>		<i>Third Most Common Requirement</i>	
	<i>Length of Service</i>	<i>Number of Firms</i>	<i>Length of Service</i>	<i>Number of Firms</i>	<i>Length of Service</i>	<i>Number of Firms</i>
One Week	No waiting period		6 months		1 year	
Two Weeks	1 year	108	2 years	26	3 years	13
Three Weeks	10 years	48	5 years	38	3-week vacation not available	23
Four Weeks	4-week vacation not available	67	15 years	29	20 years	14
Five Weeks	5-week vacation not available	126	25 years	12	20 years	11
Six Weeks	6-week vacation not available	150	30 years	3	25 years	3

Source: Developed by the authors from 1979 survey.

TABLE 6
NONMANAGERIAL VACATION REQUIREMENTS

Number of Weeks of Vacation	Most Common Requirement		Second Most Common Requirement		Third Most Common Requirement	
	Length of Service	Number of Firms	Length of Service	Number of Firms	Length of Service	Number of Firms
One Week	1 year		6 months		No waiting period	
Two Weeks	1 year	94	2 years	36	3 years	19
Three Weeks	10 years	54	5 years	40	3-week vacation not available	21
Four Weeks	4-week vacation not available	70	15 years	31	20 years	17
Five Weeks	5-week vacation not available	132	25 years	25	20 years	20
Six Weeks	6-week vacation not available	150	30 years	3	25 years	3

Source: Developed by the authors from 1979 survey.

vacations was not available. The only striking difference is that managers are generally eligible for a week of vacation with no waiting period while nonmanagers are most often required to put in one year of service. Except for that, there is little difference in the service requirement between managers and nonmanagers for vacations.

Employee Leave Policies and Services

The survey also sought information on leave policies and employee services. The nine most common reasons for granting leaves are civic and personal leaves and are tabulated in Table 7. Leaves with pay were given by over 50 percent of the respondents for the following reasons: jury (90 percent), bereavement (85 percent), military (70.2 percent), voting (67.6 percent), maternity (60.9 percent), witness (68.3 percent), and personal (68.9 percent). Compared with last year's survey, more organizations are granting these leaves.

Two leaves that continue to be uncommon in Arizona are paternity and union business. Paternity leave was offered by 17.3 percent and union business leaves by 16.7 percent of the respondents.

Personal and civic leaves clearly show the differences in benefits given to managers and nonmanagers. In all categories, except union business leave, managers are more likely to receive the paid leave. This is especially

true for personal leave. While only 37.9 percent of all employers give personal leave to all employees (Column I), 30.4 percent grant such leaves to managers exclusively (Column II).

TABLE 7
CIVIC AND PERSONAL LEAVES WITH PAY
(in percentages)*

Type of Leave	Benefit Given To:				Total*
	I Both Managers and Non- managers	II Only Managers	III Only Non- managers	IV Not Provided	
Jury Leave	80.1	8.7	1.2	9.9	99.9
Bereavement Leave	73.9	9.9	1.2	14.9	99.9
Military Leave	60.9	8.1	1.2	29.8	100.0
Voting Leave	60.2	6.2	1.2	32.3	99.9
Maternity Leave	58.4	1.9	.6	39.1	100.0
Witness Leave	52.2	15.5	.6	31.7	100.0
Personal Leave	37.9	30.4	.6	31.1	100.0
Paternity Leave	16.1	1.2	0.0	82.6	99.9
Union Business Leave	5.6	1.2	9.9	83.2	99.9

* Totals may not equal 100 percent due to rounding.

Note: Civic leaves include jury leave, military leave, voting leave, and witness leave.

Source: Developed by the authors from 1979 survey.

Employee Services

There are scores of services that organizations offer their employees. Therefore, the area of employee services is a difficult and complex area to investigate. Based on United States Department of Labor, National Chamber of Commerce and Arizona Department of Economic Security fringe benefit research, fifteen of the most common services available were chosen for inclusion in this survey. The results are displayed in Table 8. The two most frequently mentioned services were tuition refunds to employees (73.4 percent) and the availability of a credit union (63.9 percent). Other employee services offered by more than 25 percent of the organizations surveyed include: relocation allowance (54.1 percent), product discount (49.1 percent), counseling or referral service (35.4 percent), and preretirement counseling (33.6 percent). Less common services appear in decreasing order of frequency in Table 8.

Three employee services merit special attention because of growing employer interest. They are relocation assistance, preretirement counseling, and child care facilities. Relocation services are particularly important to employers because of the small professional and technical labor base in Arizona. The survey found that 54.1 percent of the respondents offered transferred employees relocation assistance, which is essentially unchanged from last year. Home purchase aid is offered to transferred employees by 21.7 percent of the employers surveyed, a drop of 2 percent from last year. In both cases managers were more likely to receive this service.

Preretirement counseling is a new and important service. However, only about one-third of Arizona organizations offer preretirement programs of assistance to employees who are nearing retirement. Only 1.7 percent of Arizona firms have added this benefit since last year.

The least common service was child care facilities. This service was reported by just one employer, down from two last year. This benefit merits attention because it may experience significant growth during the 1980s as employers seek to lower absences caused by child care arrangements or try to draw workers from the large pool of homebound parents.

Employer-Provided Insurance

The foremost employee benefit has long been insurance coverage. Table 9 lists eight different types of insurance, with medical insurance being provided by

TABLE 8
EMPLOYEE SERVICES
(in percentages)*

Type of Service	Benefit Given To:				Total*
	I Both Managers and Non- managers	II Only Managers	III Only Non- managers	IV Not Provided	
Tuition Refund	66.5	5.0	1.9	26.7	100.1
Credit Union	62.7	.6	.6	36.0	99.9
Product Discount	46.6	2.5	0.0	50.9	100.0
Counseling or Referral Service	33.5	1.9	0.0	64.6	100.0
Preretirement Counseling	31.7	1.9	0.0	66.5	100.1
Relocation Allowance	26.1	28.0	0.0	46.0	100.1
Recreational Facilities	16.8	0.0	0.0	83.2	100.0
Tuition Aid to Employee Dependents	15.5	.6	0.0	83.9	100.0
Matching of Employee Contributions to Schools or Institutions	14.9	1.9	0.0	83.2	100.0
Group Travel Programs	14.9	1.2	0.0	83.9	100.0
Subsidized Meals	13.0	0.0	1.2	85.7	99.9
Alcohol or Drug Rehabilitation Programs	13.0	1.9	0.0	85.1	100.0
Legal or Accounting Aid	12.4	0.0	.6	87.0	100.0
Home Purchase Aid	9.3	12.4	0.0	78.3	100.0
Child Care Facilities	.6	0.0	0.0	99.4	100.0

*Totals may not equal 100 percent due to rounding.

Source: Developed by the authors from 1979 survey.

TABLE 9
MEDICAL, HOSPITALIZATION AND
OTHER INSURANCE
(in percentages)*

Type of Insurance	Benefit Given To:				Total*
	I Both Managers and Non- managers	II Only Managers	III Only Non- managers	IV Not Provided	
Medical	96.3	3.1	0.0	.6	100.0
Life	93.2	3.7	0.0	3.1	100.0
Accident	88.8	2.5	0.0	8.7	100.0
Disability	64.6	10.6	.6	24.2	100.0
Dental	51.6	3.1	1.2	44.1	100.0
Auto	1.9	.6	0.0	97.5	100.0
Prepaid Legal	1.9	0.0	0.0	98.1	100.0
Home	1.9	0.0	0.0	98.1	100.0

*Totals may not equal 100 percent due to rounding.

Source: Developed by the authors from 1979 survey.

99.4 percent of all employers. Two other frequently given insurance benefits are life insurance, which is mostly term insurance (96.9 percent), and accident insurance (91.3 percent). Disability insurance is also a common insurance benefit (75.8 percent), although managers receive this more frequently than non-managers. All four of these benefits are more commonly provided than a year ago.

A large increase was registered by dental insurance. This year 55.9 percent of the respondents offered dental insurance compared to 38.3 percent last year. This fringe benefit now seems to be well established among Arizona employers. Three types of group insurance promise new growth in the future. They are auto, prepaid legal, and home insurance. Four firms offered group auto insurance and three firms each offered group home insurance and prepaid legal insurance.

Deferred Compensation Benefits

Deferred compensation benefits are those outside the salary schedule whereby employees earn a benefit that is paid sometime in the future. Frequently mentioned deferred benefits are listed in Table 10.

The most common type of deferred benefit was a pension plan. More than two-thirds of all respondents

did have a pension plan. Employer contributions to the pension plans ranged from zero to 100 percent. The modal response was 100 percent.

U. S. Savings Bonds, Christmas bonuses, stock purchase or stock option plans, profit sharing plans, production bonuses, savings or thrift plans and suggestion bonuses were available to employees from at least 20 percent of the respondents. Stock purchase or option plans and production bonuses were most frequently given only to managers. A relatively new type of benefit called employee stock option plans were mentioned by 11.2 percent of the respondents. This technique to raise new capital and turn over ownership of the company to the employee trust is an employee benefit that Arizona employers seem to have adopted readily. Other bonuses listed by employers were given for attendance, safety, and key employee, which is a method of rewarding "key employees."

Special Benefits

Six special benefits, sometimes referred to as perquisites, were listed by the respondents. Table 11 displays the findings of this area. The significant characteristic of these special benefits is that managers are the prime beneficiaries. The most frequently found benefit was professional help; 75.2 percent gave this to their employees and of this number, 55.3 percent gave it only to managers. Included in this benefit is payment of memberships in professional associations and sub-

TABLE 10

PENSION, RETIREMENT AND CAPITAL ACCUMULATION PLANS (in percentages)*

Type of Plan	Benefit Given To:				Total*
	I Both Managers and Non- managers	II Only Managers	III Only Non- managers	IV Not Provided	
Pension Plan	61.5	5.6	0.0	32.9	100.0
U.S. Savings Bonds	54.7	.6	1.2	43.5	100.0
Christmas Bonus	34.8	5.6	1.2	58.4	100.0
Stock Purchase or Stock Option Plan	23.0	11.8	0.0	65.2	100.0
Profit Sharing Plan	24.2	7.5	0.0	68.3	100.0
Production Bonus	9.9	13.7	1.9	74.5	100.0
Savings or Thrift Plan	19.3	1.9	1.2	77.6	100.0
Suggestion Bonus	18.0	0.0	3.7	78.3	100.0
Other Bonuses	8.1	8.7	1.9	81.4	100.1
Employee Stock Option Plan (ESOP)	8.1	3.1	0.0	88.8	100.0

*Totals may not equal 100 percent due to rounding.

Source: Developed by the authors from 1979 survey.

TABLE 11

SPECIAL BENEFITS (in percentages)*

Type of Benefit	Benefit Given To:				Total*
	I Both Managers and Non- managers	II Only Managers	III Only Non- managers	IV Not Provided	
Professional Help	19.9	55.3	0.0	24.8	100.0
Company Car	5.6	41.6	1.2	51.6	100.0
Social Club Membership	2.5	17.4	0.0	80.1	100.0
Tickets to Sporting or Cultural Events	11.8	7.5	0.0	80.7	100.0
Company Equipment for Personal Use	10.6	5.0	.6	83.9	100.1
Company Housing	0.0	2.5	.6	96.9	100.0

*Totals may not equal 100 percent due to rounding.

Source: Developed by the authors from 1979 survey.

scriptions to professional publications. The second most common benefit was the use of a company car; 47.2 percent of the companies give this benefit, although many of the respondents stated that the car was given to assist their sales force. The other special benefits listed are social club memberships (19.9 percent), tickets to sporting or cultural events (19.3 percent), company equipment for personal use (16.2 percent), and company housing (3.1 percent).

Miscellaneous Benefits

Two additional questions were asked of survey participants. The first dealt with automatic wage increases tied to a cost-of-living index. This benefit allows wages to increase along with increase in the cost of living. Twenty-three Arizona employers listed this as a benefit they offer their employees.

An innovative approach to compensation management is the use of flexible benefits. Flexible benefits are an arrangement whereby employees get to select which benefits they want to receive within certain bounds from their employers. This arrangement is found among only 1.9 percent of the survey participants.

SUMMARY AND CONCLUSIONS

The most complex aspect of employee compensation is found among the variety of employer-provided benefits and services. This long-term trend of increased complexity shows no indication of being reversed in either the country as a whole or Arizona in particular. Fringe benefit costs continue to climb as a proportion of total compensation. With the favorable tax treatment afforded to fringe benefits by the tax laws and the ability of employer-paid benefits to partially insulate workers from the ravages of inflation, it appears nearly certain that this trend will continue into the 1980s.

Even with the extensive range of fringe benefits now offered, it appears likely that improvements will occur in existing benefits as even newer benefits are added. The spectacular rise in dental insurance is the most dramatic example of expanding benefits that were hardly known a decade ago.

Although speculation, informed or otherwise, is always dubious, it does appear that certain benefits are poised for dramatic increases during the 1980s. Likely

candidates for growth include innovative group insurance benefits and broad-ranging employee assistance programs. Within the insurance area, group-paid legal insurance seems likely to follow the path of dental insurance. The emergence of advertising for legal services in a nation increasingly leaning toward litigation is likely to raise the consciousness of employees about the need for legal aid. Moreover, as the proliferation of law school graduates and legal clinics combines with the actuarial and marketing capabilities of insurance companies that seek new markets, one can expect to see a wave of attractive legal aid packages being offered to employers. And, with the entree already enjoyed by large insurers among employers and the recognized economies of group insurance, it would seem only a matter of time before legal aid insurance becomes a widespread reality.

At the same time, the economies of group insurance may be a powerful inducement for employers to add group homeowner and automobile insurance. Initially, these policies will be offered as a service to employees with no direct employer contribution. Employer reluctance to contribute will stem from the perceived inequity of paying for insurance that benefits only those who own homes or cars.

Another trend that emerged during the 1970s and is likely to expand during the 1980s is the use of employee assistance programs. The special purpose alcoholic rehabilitation and drug abuse services, which started in the late 1960s and 1970s, have begun to evolve into more extensive programs. Today, innovative companies such as Control Data Corporation have begun to expand alcoholic and drug services to include other efforts aimed at troubled employees and their families.

Van pooling, referral services to social agencies, family counseling, consumer information centers, and other services are slowly being added to create broad-ranging programs that help employees solve on-the-job and domestic problems that might diminish employee performance and well being.

The challenge for Arizona employers in the future will remain the same as in the past. There will continue to be a need for a delicate balance of competitive benefits on the one hand and minimum labor costs on the other. This balance is particularly precarious for Arizona employers who desire to remain competitive while trying to attract needed workers.

¹*Employee Benefits 1977*, (Washington, D.C.: The Chamber of Commerce of the United States of America, 1978) p. 5.

²The results of the first Arizona survey appear in Michael N. Wolfe, William Werther, Jr., and George Bohlander, "Employee Benefits in Arizona," *Arizona Business*, 25 (October 1978): 22-28.

Phoenix Retired Couple's Budget

Phoenix has long been known as an ideal location in which to live. One effect of this reputation has been a 26 percent population increase between 1970 and 1976.¹ A contributing factor to this rapid growth has been the increased promotion of the Phoenix area as a desirable retirement area, particularly during the last ten years.

An estimated 250,000 persons aged 65 years and older live in the state of Arizona and account for 10.9 percent of the total state population.² Of this population group, approximately 163,000 reside in the Phoenix metropolitan area.³

With increases mainly in the cost of food, housing, and medical care, the expenditures required for a retired couple to maintain an intermediate standard of living in the Phoenix area have increased 12.6 percent during 1978.

The Retired Couple's Budget was prepared by Martha E. James in conjunction with an ongoing project of the Arizona State University Bureau of Business and Economic Research. Cosponsor of the project is Valley National Bank. Martha E. James is a graduate student in the ASU Health Services Administration program and serves as a graduate research assistant in the Bureau. Questions about the budget may be directed to Dr. Donald W. Jackson, Jr., Acting Director, Bureau of Business and Economic Research in the College of Business Administration at Arizona State University.

The number of retired households in the Phoenix area has increased by 178 percent since 1970. More recently, 23 percent of the total new households established in Phoenix in 1978 were for the purposes of retirement.⁴ These data underscore the increasing importance of the retired population to the metropolitan Phoenix economy.

The purpose of this article is to report the level of expenditures required for a retired couple to maintain an intermediate standard of living in the Phoenix area. A historical analysis of expenditures is presented for comparative purposes along with the most recent figures. A comparative analysis of Phoenix and twenty-three selected metropolitan budget areas is also presented.

THE RETIRED COUPLE'S BUDGET STUDY

In 1967, the Bureau of Labor Statistics (BLS) developed budgets for a retired couple at three expenditure levels — lower, intermediate, and higher — for selected areas in the United States; however, Phoenix was not included in this study. Since 1969, in an effort to fill this void, the Bureau of Business and Economic Research in the College of Business Administration at Arizona State University has developed a comparable budget for a retired couple at the intermediate level, based on the BLS methodology.⁵

The retired couple is defined as an urban family of two persons — a husband age 65 or over and his wife —

who are presumed to be self-supporting and living as a separate household. It is also assumed that the couple is in reasonably good health with Medicare providing for most of their medical needs; and they are presumed to possess an average inventory of clothing and household goods. The budget is calculated for an intermediate standard of living, which is neither a luxurious lifestyle nor a subsistence level of living.

The Retired Couple's Budget, as defined by BLS, does *not* report how the average retired couple actually spends its money, but rather the amount of *income* necessary to purchase the predefined set of goods and services.

BUDGET COSTS

Historical Comparison: Phoenix and Metropolitan United States

As shown in Table 1, the Phoenix metropolitan retired couple's budget increased by 110.6 percent over the ten-year period from 1969 to 1978. This is a significantly greater increase than the 84.1 percent rise reported for the U. S. metropolitan average during the same period. Locally, the most substantial increases during that period occurred in the categories *Food* (128.8 percent), *Housing* (120.5 percent) and *Medical*

Care (119.4 percent). Nationally, these same categories, while exhibiting substantial increases, grew at a slower rate than that observed locally.

Figures I through VII display a ten-year trend and comparison between the Phoenix metropolitan area and the U. S. metropolitan average for the six consumption categories and the Total Budget. For the third consecutive year, the total budget for a Phoenix retired couple exceeded the national average: For 1978, the Phoenix Retired Couple's Budget was \$8,850, which was 9.2 percent higher than the U.S. metropolitan average at \$8,108.

Table 2 shows the distribution of expenditures in the retired couple's budget with comparisons between 1969 and 1978. Categories requiring a greater proportion of expenditures, both locally and nationally, include Food and Medical Care. Locally, the proportion of the budget that must be spent on Housing has also increased over the ten-year period, although on the national level, the Housing expenditures have taken a smaller proportion of the budget during the same period. Corresponding decreases were noted both nationally and locally in the proportion of the budget that must be allocated to Transportation, Clothing/Personal Care and Other Family Consumption. Figure VIII graphically presents the 1978 distribution of expenditures for the Phoenix area retired couple's budget.

TABLE 1
RETIRED COUPLE'S BUDGET
METROPOLITAN PHOENIX AND UNITED STATES
Metropolitan Average

	Metropolitan Phoenix			U.S. Metropolitan Average ¹		
	1978	1969	Percentage Change	1978	1969	Percentage Change
Total Budget	\$8,850	\$4,202	110.6	\$8,108*	\$4,404	84.1
Total Family Consumption	8,320	3,952	110.5	7,620	4,140	84.0
Food	2,617	1,144	128.8	2,328	1,157	101.2
Housing	3,114	1,412	120.5	2,815	1,585	77.6
Transportation	775	442	75.3	708	399	77.4
Clothing/Personal Care	712	375	89.9	599	395	51.6
Medical Care	724	330	119.4	774	354	118.6
Other Family Consumption	378	249	51.8	394	250	57.6
Other Items ²	530	250	112.0	488	264	84.8

*Figures have been rounded in adding.

¹In recognition of the emergence of Phoenix as a major metropolitan area, U.S. Metropolitan Average figures are presented to facilitate comparison among similarly defined areas. This is a change in the presentation as reported in *Arizona Business*, November 1978, which reported U.S. Urban Average figures.

²Other Items consist of gifts and contributions

Source: U.S. figures based on news release (USDL 78-588), U.S. Department of Labor, Bureau of Labor Statistics, August 20, 1979. Phoenix data are compiled by the Bureau of Business and Economic Research, College of Business Administration, Arizona State University, in cosponsorship with the Valley National Bank.

TABLE 2

DISTRIBUTION OF EXPENDITURES IN RETIRED COUPLE'S TOTAL BUDGETS
Metropolitan Phoenix and Metropolitan United States
(Autumn, 1978 and Autumn, 1969)

	1978 (Percentage of Total)		1969 (Percentage of Total)	
	Metro Phoenix	Metro U. S.	Metro Phoenix	Metro U. S.
Total Budget ¹	100.0	100.0	100.0	100.0
Total Family Consumption	94.0	94.0	94.0	94.0
Food	29.6	28.7	27.2	26.3
Housing	35.2	34.7	33.6	36.0
Transportation	8.8	8.7	10.5	9.1
Clothing/Personal Care	8.0	7.4	8.9	9.0
Medical Care	8.2	9.5	7.8	8.0
Other Family Consumption	4.3	4.9	5.9	5.7
Other Items ²	6.0	6.0	5.9	6.0

¹Totals may not equal 100.0 due to rounding.

²Other Items category consists of gifts and contributions.

Source: Distribution of Metropolitan U.S. Budgets from the U.S. Department of Labor, Bureau of Labor Statistics. Phoenix data are compiled by the Bureau of Business and Economic Research, College of Business Administration, Arizona State University, in cosponsorship with the Valley National Bank.

TABLE 3

1978 RETIRED COUPLE'S BUDGET AT AN INTERMEDIATE LEVEL FOR
PHOENIX METROPOLITAN AREA AND UNITED STATES METROPOLITAN AVERAGE

	1977 Phoenix Retired Couple's Budget	1978 Phoenix Retired Couple's Budget	1977-78 Dollar Change	1977-78 Percentage Change	1977 Metro U.S. Retired Couple's Budget	1978 Metro U.S. Retired Couple's Budget	1977-78 Dollar Change	1977-78 Percentage Change
Total Budget	\$7,859	\$8,850	\$991	12.6	\$7,479*	\$8,108*	\$629	8.4
Total Family Consumption	7,388	8,320	932	12.6	7,029	7,620	591	8.4
Food	2,314	2,617	303	13.1	2,071	2,328	257	12.4
Housing	2,712	3,114	402	14.8	2,702	2,815	113	4.2
Transportation	733	775	42	5.7	667	708	41	6.1
Clothing	362	423	61	16.8	366	375	9	2.5
Personal Care	248	289	41	16.5	210	224	14	6.7
Medical Care	666	724	58	8.7	639	774	135	21.1
Other Family Consumption	353	378	25	7.1	375	394	19	5.1
Other Items	471	530	59	12.5	450	488	38	8.4

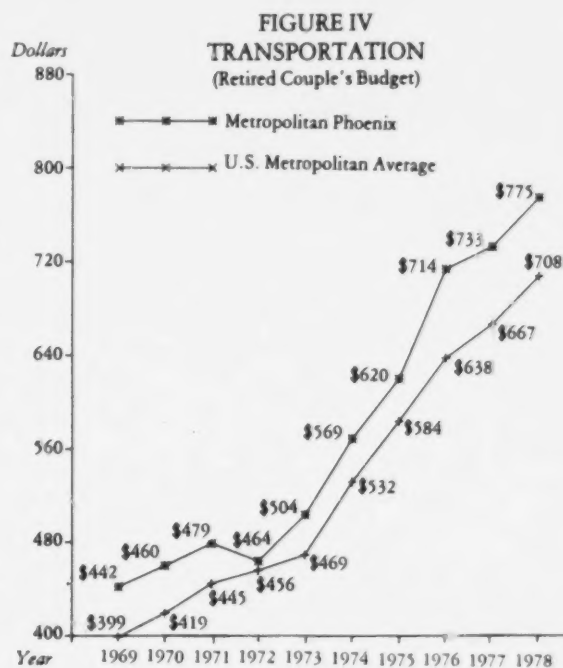
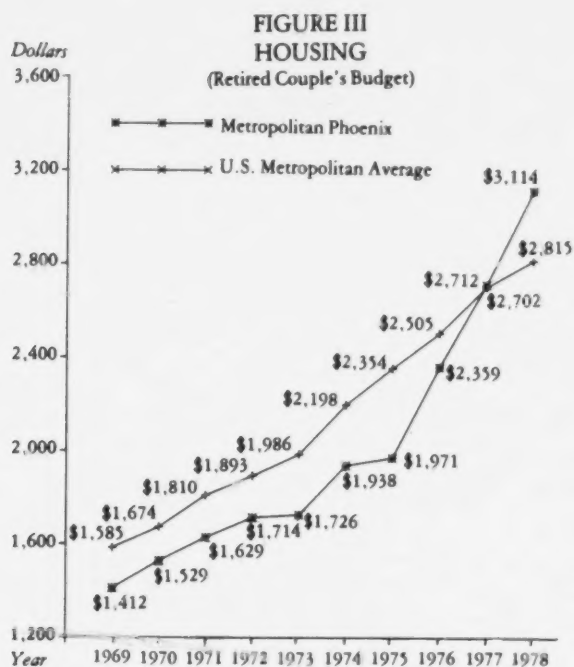
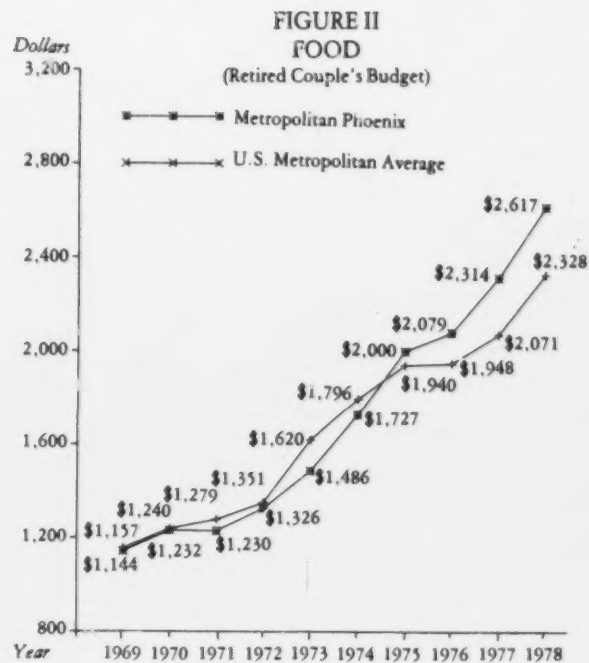
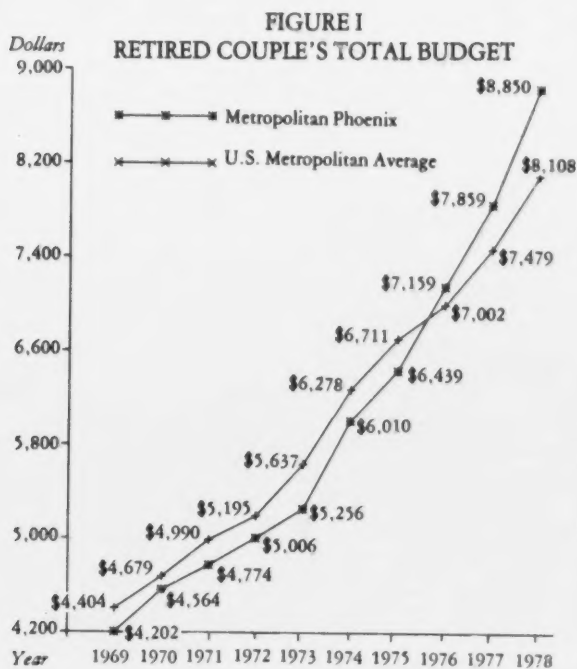
*Totals may not reflect rounding

Source: U.S. figures based on August 20, 1979, U.S. Department of Labor, Bureau of Labor Statistics news release (USDLS 78-588). Metropolitan Phoenix data developed and compiled by the Bureau of Business and Economic Research, College of Business Administration, Arizona State University, in cosponsorship with the Valley National Bank.

1978 Phoenix Budget Costs vs.
U.S. Metropolitan Average

As presented in Table 3, the total budget for a hypothetical retired couple in metropolitan Phoenix increased by 12.6 percent (\$991) from fourth quarter,

1977 to fourth quarter, 1978. This places the total budget at \$8,850. Four categories accounted for 83.2 percent of the increase (\$824): *Housing*, which registered the largest dollar increase, rose by \$402 (14.8 percent) reflecting significant increases in monthly contract rent and utility expenses. *Food* costs rose by \$303



Source: U.S. Urban Average, Bureau of Labor Statistics; Phoenix data compiled by the Bureau of Business and Economic Research, College of Business Administration, Arizona State University, in cooperation with Valley National Bank of Arizona.

FIGURE V
CLOTHING AND PERSONAL CARE
(Retired Couple's Budget)

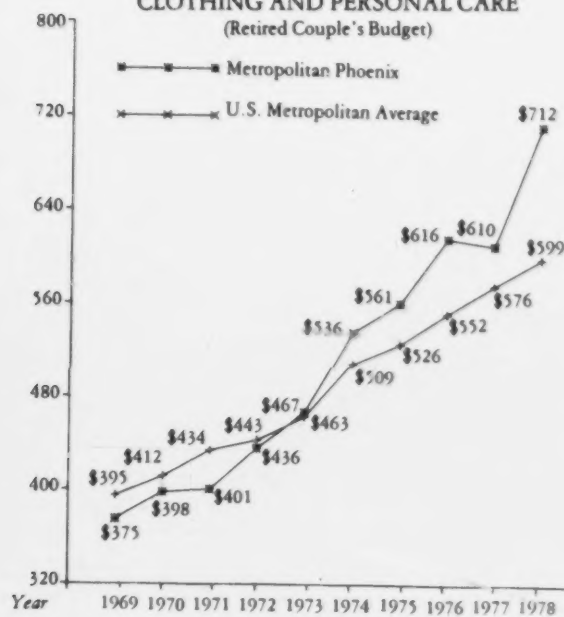


FIGURE VI
MEDICAL CARE
(Retired Couple's Budget)

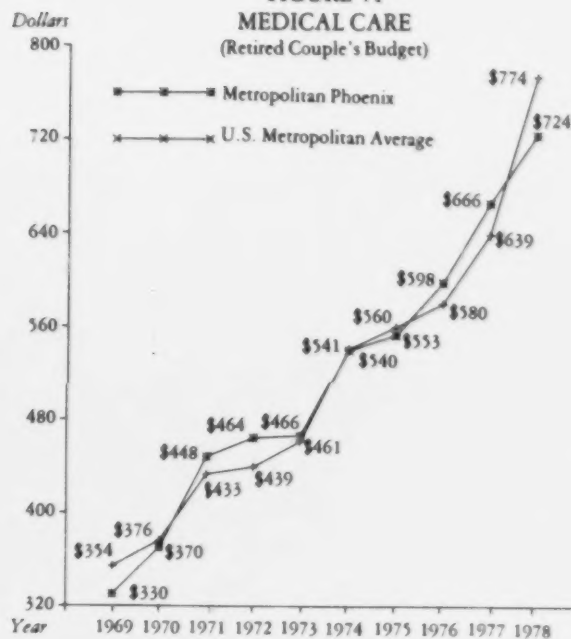


FIGURE VII
OTHER FAMILY CONSUMPTION
(Alcoholic Beverages, Tobacco Products,
Reading and Recreation)
(Retired Couple's Budget)

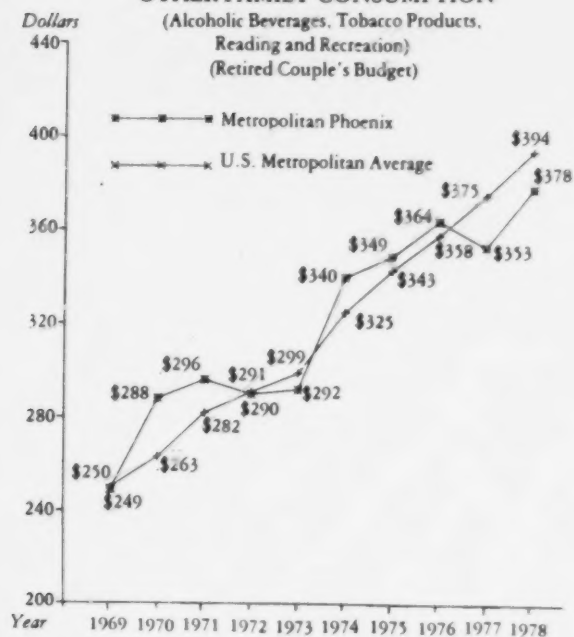
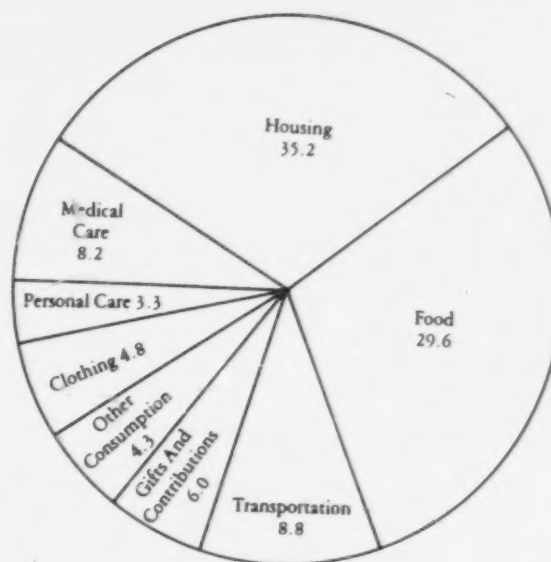


FIGURE VIII
PERCENTAGE DISTRIBUTION OF EXPENDITURES
RETIRED COUPLE'S BUDGET, PHOENIX 1978



Source: U.S. Urban Average, Bureau of Labor Statistics; Phoenix data compiled by the Bureau of Business and Economic Research, College of Business Administration, Arizona State University, in cooperation with Valley National Bank of Arizona.

(13.1 percent) resulting primarily from increases in food at home, particularly fruits, vegetables, meat, poultry, and fish. *Clothing* costs exhibited an increase of \$61 (16.8 percent), directly related to the increase in costs of men's outerwear. *Medical Care* costs increased by \$58 (8.7 percent) primarily due to an increase in costs not covered by Medicare (physician checkup visits, dental care, eye care, and drugs). The remaining categories of Transportation, Personal Care, and Other Family Consumption showed moderate dollar increases even though Personal Care showed one of the largest percentage increases (16.5 percent).

The total U. S. Metropolitan average budget costs rose by 8.4 percent (\$627) between the fourth quarter, 1977 and fourth quarter, 1978. This increase was led by substantial gains in *Medical Care* (21.1 percent) and *Food* (12.4 percent). Comparison of the two budgets (see Table 3) reveals that the Phoenix percentage in-

creases exceeded those of the U. S. metropolitan average in five of the seven consumption categories: Food, Housing, Clothing, Personal Care, and Other Family Consumption. Yet the local percentage increase for Transportation, and Medical Care was less than the national increase. Medical Care costs increased 21.1 percent nationally during 1978, but only showed an 8.7 percent increase locally.

Phoenix Compared to Other Metropolitan Areas

Table 4 shows a comparison of budget costs for fourth quarter, 1978, the increase since fourth quarter 1977, and historical data on budget costs for 1969 for Phoenix and twenty-three other metropolitan areas.⁶ During the ten-year period, 1969 to 1978, the Phoenix budget more than doubled, increasing at a faster rate than that of any other metropolitan area considered,

TABLE 4
HISTORICAL COMPARISON OF RETIRED COUPLE'S BUDGET COSTS
METROPOLITAN PHOENIX AND 23 OTHER METROPOLITAN AREAS — 1969 AND 1978

	1969 Budget and Rank	1978 Budget and Rank	1969-78 Dollar Increase	1969-78 Percentage Increase	Percentage of U. S. Metro Average
Metro U.S.	\$4,404	\$8,108	\$3,704	84.1	100.0
Boston	4,643 (3)	9,257 (1)	4,614	99.4	114.2
New York-New Jersey	4,689 (2)	9,061 (2)	4,372	93.2	111.8
Honolulu	4,755 (1)	8,987 (3)	4,232	89.0	110.8
PHOENIX	4,202 (19)	8,850 (4)	4,648	110.6	109.2
Seattle	4,623 (4)	8,500 (5)	3,877	83.9	104.9
Buffalo	4,604 (6)	8,435 (6)	3,831	83.2	104.0
Washington, DC	4,422 (8)	8,427 (7)	4,005	90.6	103.9
San Francisco-Oakland	4,607 (5)	8,309 (8)	3,702	80.4	102.5
Philadelphia	4,380 (10)	8,187 (9)	3,807	86.9	101.0
Cleveland	4,520 (7)	8,168 (10)	3,648	80.7	100.7
Milwaukee	4,386 (9)	8,098 (11)	3,712	84.6	99.9
Pittsburgh	4,241 (15)	7,966 (12)	3,725	87.8	98.3
Detroit	4,194 (17)	7,965 (13)	3,771	89.9	98.2
Minneapolis-St. Paul	4,277 (14)	7,915 (14)	3,638	85.1	97.6
Kansas City, MO	4,224 (16)	7,852 (15)	3,628	85.9	96.8
St. Louis	4,289 (13)	7,766 (16)	3,477	81.1	95.8
Chicago	4,309 (12)	7,765 (17)	3,456	80.2	95.8
Baltimore	4,106 (21)	7,717 (18)	3,611	87.9	95.2
Cincinnati	4,111 (20)	7,700 (19)	3,589	87.3	95.0
Los Angeles-Long Beach	4,374 (11)	7,634 (20)	3,260	74.5	94.2
Houston	4,017 (22)	7,614 (21)	3,597	89.5	93.9
San Diego	4,179 (18)	7,435 (22)	3,256	77.9	91.7
Dallas	4,000 (23)	7,431 (23)	3,431	85.8	91.7
Atlanta	3,923 (24)	7,172 (24)	3,249	82.8	88.5

Source: U.S. figures based on August 20, 1979, U.S. Department of Labor, Bureau of Labor Statistics, news release (USDLS 78-588). Metropolitan Phoenix data are developed and compiled by the Bureau of Business and Economic Research, College of Business Administration, Arizona State University, in cosponsorship with the Valley National Bank.

moving it into the position of being the fourth largest budget for a retired couple in 1978.

Further analysis reveals that in 1969 the range between the highest and lowest budget was \$832; in 1978 this had increased to \$2,085. Also in 1969 eight cities had budgets greater than or equal to the U. S. metropolitan average. As of 1978, this number had risen to ten. It is expected that these trends will continue.

SUMMARY AND FORECAST

The intermediate level retired couple's budget for the Phoenix metropolitan area exhibited a 12.6 percent increase from the fourth quarter of 1977 to the fourth quarter of 1978. The most significant cost increases

were in the areas of Housing, Food, Clothing and Medical Care. In comparison, the U. S. metropolitan average rose by 8.4 percent during the same period. This was related to substantial increases in the Food and Medical Care consumption categories.

During the period 1969 to 1978, the most dramatic increases in the Phoenix budget have occurred in the categories Food, Housing and Medical Care; each has more than doubled in the ten-year span. For the third consecutive year the Phoenix budget has exceeded that of the U. S. metropolitan average. At this time, no diminishing of the gap between the metropolitan average and Phoenix budgets is expected. Recent estimates for 1979 suggest that another 10 to 13 percent increase should be expected.⁷

¹U. S. Department of Commerce, Bureau of the Census, *Statistical Abstract of the United States*, 1978, 99th edition, pp. 20-22.

²*Ibid.*, p. 30.

³*Inside Phoenix*, 1979, (Phoenix Ariz.: Phoenix Newspapers, Inc.) p. 10.

⁴*Ibid.*, p. 12.

⁵For precise specifications of the goods, services, and protocol defining the budget, see, "Three Budgets for a Retired Couple in Ur-

ban Areas of the United States," Bulletin 1570-6, U. S. Department of Labor, Bureau of Labor Statistics.

⁶One difference between the Phoenix budgets and those published annually by the BLS, is that the Phoenix budget uses a direct pricing technique, while the BLS uses the Consumer Price Index to update their budgets. The BLS conducted its last direct pricing effort in 1969.

⁷Extracted from information contained in "Metropolitan Phoenix Consumer Price Index," *Arizona Business* (October 1979), pp. 30-31.

The Arizona Business Scene



The Business of Service



Service industries in Arizona constitute a vital and growing segment of the state's economy. In 1977, service industries accounted for approximately 24.5 percent of the private nonfarm employment in Arizona and supplied 21.5 percent of personal income in the state. Receipts of service establishments in Arizona totaled over \$1.8 billion in 1977.

Nine major categories of service establishments are currently surveyed by the U.S. Bureau of the Census: hotels, motels, etc.; personal services; business services; automotive repair, etc.; miscellaneous repair; amusement and recreation; dental laboratories; legal services; and engineering, architectural, etc. Major service categories not included in the economic census are medical care and such public services as educational, social, or rehabilitation services.

The healthy growth of Arizona service industries can be seen in a comparison of figures from the *Census of Selected Service Industries* for 1972 and 1977. Over the five-year period, total receipts increased by 72.3 percent in Arizona as compared to a 71.4 percent increase nationally. During the same time span, consumer prices increased by 43.1 percent in the Phoenix Metropolitan Area and by 44.8 percent on a United States city average basis.

Table 1 displays the 1977 Arizona service receipts by major category and the relative importance of each. As shown, the business service sector constitutes the largest source of statewide receipts. Such services include advertising, services to buildings (i.e., exterminating, maintenance, cleaning), computer and data processing services, management consulting and public relations, equipment rental and leasing, and a broad range of business support services. The importance of tourism in Arizona is reflected by the fact that a significant portion of service receipts (11.0 percent) is derived from hotels,

motels, trailer parks, and camps. Almost 14 percent of service receipts are from automotive repair and related services; personal services such as laundry, cleaning, photography, beauty and barber shops, shoe repair and funeral services constitute slightly over 10 percent of total receipts.

TABLE 1
1977 RECEIPTS OF ARIZONA SERVICE
ESTABLISHMENTS
(By Major Category)

Service Category	Total Receipts (thousands)	Percentage of Total Receipts
Hotels, motels, etc.	\$ 296,888	16.0
Personal services	189,563	10.2
Business services	495,541	26.7
Automotive repair, etc.	254,261	13.7
Miscellaneous repair services	117,117	6.3
Amusement and recreation	156,172	8.4
Dental laboratories	12,969	.7
Legal services	190,646	10.3
Engineering, architectural, etc.	139,495	7.5
TOTAL	\$1,852,652	99.8

Source: U.S. Department of Commerce, Bureau of the Census, 1977 *Census of Service Industries*, Arizona.

From 1972 to 1977, the most rapid growth in receipts occurred in dental laboratories, which registered an increase of over 112 percent. Legal services experienced an 85 percent increase, and receipts from automotive repair services increased by slightly over 80 percent. The slowest growth occurred in personal service receipts which increased by 45 percent in the five-year period.

The total number of service establishments in Arizona reached 20,582 in 1977, an increase of 25 percent over 1972. Almost three-fourths of the service establishments are sole proprietorships. Approximately

27 percent of the 15,376 sole proprietorships recorded for 1977 provided business services and 24 percent were in the personal service category.

Although establishments with payrolls constituted only one-fourth of the total number of service establishments, they accounted for 91.1 percent of total receipts in the state. The 1977 average of \$22,240 in receipts per employee represented a 38 percent increase over 1972. The overall average payroll per service employee was \$7,344 — up 38.7 percent over 1972. Both the highest amount of receipts per employee (\$39,232) and the highest level of payroll per employee (\$15,857) were found in the legal services category. With the exception of automotive repair services, the service industries generally showed a close association between the level of receipts per employee and the amount of payroll per employee. Dental laboratories accounted for the fastest growth in employment with an 87.4 percent increase from 1972 to 1977. The overall employment growth rate for service establishments with payroll was slightly less than 25 percent in the five-year period.

The highest level of receipts per establishment occurred in the hotel-motel category with an average of \$235,439 in 1977. Engineering, architectural, and surveying services averaged \$134,388 per establishment; legal services recorded an average \$113,886; and automotive repair service establishments averaged \$111,420 in receipts.

The two most urbanized counties — Maricopa and Pima — accounted for 68.7 percent and 18.9 percent respectively of the statewide service receipts in 1977. As shown in Table 2, the largest concentration of Maricopa County service industry receipts was in Phoenix, which accounted for approximately 69.7 percent of total county receipts. The distribution among major categories in Phoenix was similar to the Arizona pattern with 34.7 percent of receipts derived from business services. Phoenix differed from the state in that legal services were second in importance with 13.8 percent of service receipts and hotel-motel services accounted for only 8.9 percent of total receipts.

Establishments in the city of Tucson accounted for 77.8 percent of the 1977 receipts from service industries in Pima County. The Tucson receipts were more evenly distributed among the major categories with business services (20.2 percent), legal services (13.5 percent), and hotel-motel services (13.4 percent) constituting the main sources of service receipts in the city.

Although 78.9 percent of the service establishments in Maricopa County were sole proprietorships or part-

TABLE 2
1977 RECEIPTS OF SERVICE INDUSTRIES
IN MARICOPA COUNTY COMMUNITIES

City	Total Receipts (thousands)	Percentage of Maricopa County Receipts
Phoenix	\$ 887,690	69.7
Scottsdale	121,814	9.6
Tempe	76,669	6.0
Mesa	62,844	4.9
Glendale	32,222	2.5
Paradise Valley	9,467	.7
Chandler	7,868	.6
Peoria	5,200	.4
Wickenburg	3,101	.2
Buckeye	2,322	.2
Gilbert	2,122	.2
Avondale	1,593	.1
Tolleson	1,401	.1
Surprise	158	•
Remainder of County	58,938	4.6
TOTAL	\$1,273,535	99.8

*less than .1 percent

Source: U.S. Department of Commerce, Bureau of the Census, 1977
Census of Service Industries, Arizona.

nerships, they accounted for less than 8 percent of the countywide service receipts. The 5,280 establishments with payrolls employed 51,356 people for an average annual payroll of \$7,697 per employee. As at the state level, legal services in Maricopa County recorded both the highest level of receipts per employee (\$41,099) and of payroll per employee (\$16,666). Automotive repair services averaged \$40,770 in receipts and \$9,113 in payroll per employee.

In Pima County, the pattern was generally similar to that in Maricopa County and in Arizona. Sole proprietorships and partnerships constituted 82.7 percent of the service establishments and accounted for 8.9 percent of the countywide service receipts. The 15,112 service employees in Pima County averaged \$7,268 in payroll and \$21,098 in annual receipts. Legal service employees averaged \$15,573 in payroll and \$35,342 in receipts for 1977. Automotive repair services reported an annual payroll of \$7,872 per employee and average receipts of \$34,284 per employee.

In general, the growth of service industries in Arizona reflects the recent population increases in the state and the metropolitan areas. With projected population increases of well over 50 percent in the next twenty years, the service industries in Arizona should continue to play a major role in the state's economic growth.

A Survey of Arizona Business Conditions

HAROLD FEARON

The Arizona economy gave off mixed signals in October, according to the monthly business survey of the Purchasing Management Association of Arizona. While all indicators were on the positive side, showing that the economy continues to follow an upward path, the rate of growth was not as strong as during the first half of the year. The good news is that the rate of price hikes continues to slow; production is strong; and there is no inventory overhang which could spell real trouble for the future. The bad news is that the rate of increase on both new orders received from customers and employment deteriorated, showing that economic growth has assumed more moderate proportions.

The purchasing business survey now is in its eighteenth year of consecutive monthly reporting on the current health of the Arizona economy. Data are gathered through a questionnaire sent at the close of each month to purchasing managers around the state, asking them to indicate the direction of economic activity in the month just ended — higher, unchanged, or lower. Since these purchasing managers deal daily with the forces of supply and demand, they are in a prime position to provide timely and accurate information on current economic trends.

Dr. Fearon is Professor of Management in the College of Business Administration at Arizona State University.

Prices paid for major purchased items continued to increase in October, as they have done in each month of 1979. Yet, the rate of increase was slightly under that of September and the lowest since October of 1978. Higher prices paid were reported by 65 percent of the purchasing managers; 35 percent said prices were the same; and no one said they paid lower prices in October compared to September. While it probably is too early to tell, the inflation rate seems to be moderating slightly, which certainly is an encouraging sign. If the Federal Reserve continues to hold its ground in restricting growth in the money supply, the resulting higher interest rates likely will begin to slow down the overall price increase rate.

Delivery time on shipments from vendors continued to stretch out and at about the same rate as in the previous three months. Longer delivery times were reported by 47 percent, which was several times larger than the 7 percent which said they got faster delivery in October than in September. This shows that business activity continues strong, for vendors to Arizona firms evidently continue to receive plenty of purchase orders from their customers.

Inventory levels of purchased materials went up again in October, but the rate of increase was small and the lowest since last June. Twenty-eight percent added to inventory, but 21 percent said their firm reduced stock levels in October. The inventory indicator has re-

mained relatively stable over most of 1979, and the low increases show that inventory remains well under control and presents no real threat to a continuation of economic growth.

New orders received from customers also went up in October, but the net increase rate was small and the lowest in almost three years (since December of 1976). Thirty percent said their firm booked more new business in October than in September, but 23 percent experienced a drop-off in new business. Obviously, this is bad news for a continuation of the present economic upswing; if this declining trend in the increase rate of new orders continues over any extended time period, it will result in a cutback of both production and employment in the near future.

Production registered another healthy increase in October. Higher production was reported by 39 percent of the firms, compared to only 15 percent who cut output. While this net production increase was somewhat lower than in some of the earlier months of the year, this indicator has shown consistent strength over this past year.

Employment went up for the forty-sixth consecutive month (since December, 1975), which is about the duration of the current economic upswing. The rate of increase, though, was lower than in September and the smallest in about a year and a half (since February of 1978). Twenty-seven percent said they added employees in October, but 13 percent pared payrolls. This slower employment growth probably is a reflection of

adjustments made in response to the declining rate of increases in new order receipts.

The Arizona economy is not performing at quite the solid pace registered earlier in the year and evidently is feeling the effects of the spotty performance on the national economic scene. Yet, it continues to expand, even though the new order and employment indicators are signaling a slower rate of advance. The balance of the year likely will see a continuation of this slower growth rate, but 1979 will end on a good note, with the Arizona economy having reached new, high ground.

The results of the October purchasing survey are shown in Table 1.

TABLE 1

OCTOBER PURCHASING SURVEY

Key Indicators	Percent of Purchasing Managers Indicating Each Response (October compared to September)		
	Higher	Same	Lower
Prices paid for major commodities	65	35	0
Delivery time from vendors	47	46	7
Purchased materials inventory level	28	51	21
New orders received	30	47	23
Production	39	46	15
Employment	27	60	13

Source: Survey of the Purchasing Management Association of Arizona.

ARIZONA SALES OF ELECTRICAL POWER
By Months
(In millions of kwh)

	Actual	
	1979	1978
September	2,833.7	2,547.3

Source: Based on reports from major suppliers.

Percent Change Current Month From	
Same Month Previous Year	Previous Month
11.24	- 5.45

Arizona Building Permits: Monthly Report

SEPTEMBER, 1979

CENSUS DIVISION

	RESIDENTIAL			COMMERCIAL			INDUSTRIAL			OTHER			TOTAL		
	Number of Permits	Dollar Value		Number of Permits	Dollar Value		Number of Permits	Dollar Value		Number of Permits	Dollar Value		Number of Permits	Dollar Value	
APACHE COUNTY	14	222,000		2	2,000		—	—		1	15,000		17	239,000	
Eagar	3	147,000		1	2,000		—	—		1	15,000		5	164,000	
St. Johns	6	N/C		1	N/C		—	—		—	—		7	N/C	
Springerville	—	—		—	—		—	—		—	—		—	—	
Unincorporated Apache County	5	75,000		—	—		—	—		—	—		5	75,000	
COCHISE COUNTY	156	2,387,116		4	426,050		—	—		98	952,935		258	3,766,101	
Benson	5	131,325		—	—		—	—		4	1,810		9	133,135	
Bisbee	25	34,805		1	10,000		—	—		1	25,000		27	69,805	
Douglas	24	180,330		1	33,750		—	—		11	254,550		36	486,610	
Huachuca City	5	4,586		—	—		—	—		—	—		5	4,586	
Sierra Vista	65	1,293,842		—	—		—	—		57	94,891		122	1,388,733	
Tombstone	—	—		—	—		—	—		—	—		—	—	
Unincorporated Cochise County	28	730,928		2	382,300		—	—		19	553,704		49	1,666,932	
Willcox	4	11,500		—	—		—	—		6	23,000		10	34,500	
COCONINO COUNTY	115	3,438,294		32	1,949,210		—	112,000		75	175,396		223	5,674,900	
Flagstaff	35	1,382,256		31	1,802,657		1	112,000		43	92,125		110	3,389,038	
Fredonia	1	40,000		—	—		—	—		2	500		3	40,500	
Page	13	508,050		—	—		—	—		1	1,600		14	509,650	
Unincorporated Coconino County	64	1,507,090		1	146,553		—	—		23	68,923		88	1,722,564	
Williams	2	898		—	—		—	—		6	12,250		8	13,148	
GILA COUNTY	84	891,729		1	7,800		1	25,000		22	795,280		108	1,719,809	
Globe	7	12,500		—	—		—	—		3	7,000		10	19,500	
Hayden	4	2,400		—	—		—	—		1	2,722		5	5,122	
Miami	3	1,845		—	—		—	—		1	35,056		4	36,899	
Payson	26	191,956		1	7,800		—	—		12	170,877		39	370,633	
Unincorporated Gila County	44	683,030		—	—		1	25,000		5	579,625		50	1,287,655	
GRAHAM COUNTY	53	771,744		5	64,900		—	—		7	18,100		65	854,744	
Pima	3	58,000		—	—		—	—		—	—		3	58,000	
Safford	1	217,900		2	37,000		—	—		6	6,100		25	261,000	
Thatcher	10	156,000		—	—		—	—		1	12,000		11	168,000	
Unincorporated Graham County	23	339,844		3	27,900		—	—		—	—		26	367,744	
GREENLEE COUNTY	2	23,000		—	—		—	—		1	100,002		3	123,002	
Clifton	—	—		—	—		—	—		—	—		—	—	
Duncan	1	8,000		—	—		—	—		1	100,002		2	108,002	
Unincorporated Greenlee County	1	15,000		—	—		—	—		—	—		1	15,000	
MARICOPA COUNTY	2,027	44,626,098		170	35,916,731		46	21,219,928		1,695	31,587,390		3,938	133,350,147	
Avondale	—	—		4	180,000		—	—		10	17,185		14	197,185	
Buckeye	144	2,207,372		4	240,000		3	11,124,800		5	14,500		9	24,500	
Chandler	—	—		—	—		—	—		108	408,807		255	13,740,979	
El Mirage	—	—		—	—		—	—		—	—		—	—	
Gila Bend	—	—		—	—		—	—		—	—		—	—	
Gilbert	27	353,071		3	9,065		—	—		1	500		1	500	
Glendale	80	1,723,200		6	282,000		1	28,000		13	87,000		44	477,136	
Goodyear	—	—		1	75,000		—	37,000		240	496,925		327	2,539,125	
Guadalupe	3	59,896		12	35,000		—	—		19	434,132		20	509,132	
Mesa	256	3,242,157		—	—		—	—		—	—		3	59,896	
Paradise Valley	11	812,955		1	202,000		—	—		190	16,983,350		459	26,477,618	
Peoria	16	89,573		1	202,000		—	—		29	224,991		40	1,037,946	
Phoenix	686	23,030,025		94	23,693,691		26	7,879,228		20	75,446		37	367,019	
Scottsdale	205	4,885,640		16	3,723,834		—	—		764	10,610,559		1,570	65,213,503	
Surprise	1	2,000		—	—		—	—		250	1,274,510		471	9,883,984	
Tempe	93	1,632,500		13	523,100		—	—		2	380		3	2,380	
Tolleson	8	63,800		16	770,930		14	2,115,900		28	337,000		148	4,608,500	
Unincorporated Maricopa County	475	6,417,415		—	—		—	—		1	500		9	64,300	
Wickenburg	9	93,614		—	—		—	—		9	615,700		500	7,804,045	
Youngtown	13	12,880		—	—		—	—		3	2,300		12	95,914	
										3	3,605		16	16,485	

Arizona Building Permits: Monthly Report (Continued)

SEPTEMBER, 1979	RESIDENTIAL*			COMMERCIAL			INDUSTRIAL			OTHER			TOTAL		
	Number of Permits	Dollar Value	Number of Permits	Number of Permits	Dollar Value	Number of Permits	Number of Permits	Dollar Value	Number of Permits	Number of Permits	Dollar Value	Number of Permits	Number of Permits	Dollar Value	Number of Permits
MOHAVE COUNTY															
Kingman City	583	6,381,915	20	1,910,347	—	—	—	—	31	150,441	—	—	634	8,442,703	—
Kingman City	23	299,088	4	94,300	—	—	—	—	12	52,336	—	—	39	445,724	—
Kingman City	85	652,067	1	52,416	—	—	—	—	—	—	—	—	86	704,483	—
Lake Havasu City	95	2,393,601	6	967,267	—	—	—	—	16	97,193	—	—	117	3,458,061	—
Lake Havasu Area	43	313,022	—	—	—	—	—	—	—	—	—	—	43	313,022	—
Mohave Valley North	209	1,617,633	5	673,320	—	—	—	—	—	—	—	—	214	2,290,953	—
Mohave Valley South	82	713,897	3	88,724	—	—	—	—	—	—	—	—	86	802,709	—
Dolan Springs	13	85,456	—	—	—	—	—	—	—	—	—	—	13	85,456	—
Sacramento Valley	27	193,221	1	34,320	—	—	—	—	2	784	—	—	30	228,325	—
Mohave County General	6	113,970	—	—	—	—	—	—	—	—	—	—	6	113,970	—
Holbrook	243	4,878,039	4	95,968	—	—	—	—	520	91,250	—	—	767	5,065,257	—
Show Low	6	113,500	—	—	—	—	—	—	—	—	—	—	6	113,500	—
Snowflake	13	147,178	—	—	—	—	—	—	518	35,330	—	—	531	182,508	—
Taylor	3	5,000	1	N/C	—	—	—	—	—	—	—	—	4	N/C	—
Unincorporated Navajo County**	205	4,491,301	3	95,968	—	—	—	—	—	—	—	—	3	5,000	—
Winslow	13	121,060	—	—	—	—	—	—	—	—	—	—	14	121,260	—
PIMA COUNTY															
Marana	939	17,186,313	29	14,439,700	—	—	—	1,000,000	320	2,453,473	—	—	1,289	35,079,486	—
Oro Valley	1	15,961	—	—	—	—	—	—	—	—	—	—	1	N/C	—
South Tucson	3	15,961	—	—	—	—	—	—	—	—	—	—	3	15,961	—
Tucson	265	4,752,653	17	9,852,700	—	—	—	—	N/R	N/R	—	—	N/R	N/R	—
Unincorporated Pima County	670	12,417,699	12	4,587,000	—	—	—	1,000,000	234	1,690,973	—	—	517	17,296,326	—
PINAL COUNTY															
Casa Grande	76	679,428	2	862,805	—	—	—	—	86	762,500	—	—	768	17,767,199	—
Coolidge	7	24,142	N/R	N/R	—	—	—	—	25	41,503	—	—	103	1,583,736	—
Eloy	4	2,700	—	—	—	—	—	—	N/R	N/R	—	—	N/R	N/R	—
Florence	6	95,050	1	62,805	—	—	—	—	2	—	—	—	9	24,142	—
Kearny	3	1,100	—	—	—	—	—	—	5	32,850	—	—	5	65,505	—
Mammoth	1	N/C	—	—	—	—	—	—	—	—	—	—	3	1,100	—
Superior	—	—	—	—	—	—	—	—	—	—	—	—	1	N/C	—
Unincorporated Pinal County	55	556,436	1	800,000	—	—	—	—	18	8,653	—	—	—	—	—
SANTA CRUZ COUNTY															
Nogales	71	1,521,500	—	—	—	—	—	—	9	44,915	—	—	81	1,596,415	—
Patagonia	1	5,000	N/R	N/R	—	—	—	—	N/R	N/R	—	—	N/R	N/R	—
Unincorporated Santa Cruz County	70	1,516,500	—	—	—	—	—	—	—	—	—	—	1	5,000	—
YAVAPAI COUNTY															
Chino Valley	227	4,684,315	13	428,000	—	—	—	30,000	9	44,915	—	—	80	1,591,415	—
Clarkdale	17	295,049	—	—	—	—	—	172,880	71	418,800	—	—	315	5,703,995	—
Clarkdale	4	205,000	—	—	—	—	—	20,000	5	72,450	—	—	23	387,499	—
Cottonwood	18	165,525	5	116,500	—	—	—	—	1	8,500	—	—	5	213,500	—
Jerome	N/R	N/R	N/R	N/R	—	—	—	26,000	2	580	—	—	27	308,605	—
Prescott	47	638,148	3	174,000	—	—	—	N/R	N/R	N/R	—	—	N/R	N/R	—
Unincorporated Yavapai County	141	3,380,593	5	137,500	—	—	—	126,880	42	214,579	—	—	93	1,153,607	—
YUMA COUNTY															
Parker	109	2,132,767	4	1,478,552	—	—	—	—	21	122,691	—	—	167	3,640,784	—
Somerton	1	39,953	—	—	—	—	—	—	36	527,533	—	—	149	4,138,852	—
Unincorporated Yuma County	3	94,500	—	—	—	—	—	—	2	4,485	—	—	3	94,500	—
Wellton	55	974,869	1	30,000	—	—	—	—	9	425,207	—	—	65	1,430,076	—
Yuma	2	41,000	—	—	—	—	—	—	—	—	—	—	2	41,000	—
Yuma	48	982,445	3	1,448,552	—	—	—	—	25	97,841	—	—	76	2,528,838	—
TOTAL Maricopa County															
September 1979	2,027	44,626,098	170	35,916,731	—	—	—	21,219,928	1,695	31,587,390	—	—	3,938	133,350,147	—
TOTAL Maricopa County															
September 1978	3,541	87,177,604	107	30,624,312	—	—	—	4,549,050	1,728	18,205,213	—	—	5,419	140,556,179	—
PERCENT CHANGE	-43	-49	59	17	—	—	—	360	-2	74	—	—	-27	-5	—
TOTAL Arizona															
September 1979	4,699	89,824,258	286	57,582,063	—	—	—	25,559,808	2,911	37,372,018	—	—	7,950	207,338,147	—
TOTAL Arizona															
September 1978	6,478	132,546,960	221	40,330,901	—	—	—	4,731,649	2,446	26,417,276	—	—	9,191	204,026,786	—
PERCENT CHANGE	-27	-32	29	43	—	—	—	377	19	41	—	—	-14	2	—

N/C: Not collected. N/R: No report, data for this month will be combined with data reported for the following month.
 *Includes mobile homes.
 **Includes August and September data.

Arizona New Housing Starts: Monthly Report

SEPTEMBER, 1979

BUILDING PERMITS ISSUED

CENSUS DIVISION	1* Family	Duplex	3-4 Families	5 or More	Housing Units
APACHE COUNTY	14	—	—	—	14
Eagar	3	—	—	—	3
St. Johns	6	—	—	—	6
Springerville	—	—	—	—	—
Uninc. Apache Co.	5	—	—	—	5
COCHISE COUNTY	68	—	—	—	68
Benson	5	—	—	—	5
Bisbee	—	—	—	—	—
Douglas	3	—	—	—	3
Huachuca City	—	—	—	—	—
Sierra Vista	34	—	—	—	34
Tombstone	—	—	—	—	—
Uninc. Cochise Co.	26	—	—	—	26
Willcox	—	—	—	—	—
COCONINO COUNTY	79	4	5	—	103
Flagstaff	20	4	5	—	44
Fredonia	1	—	—	—	1
Page	11	—	—	—	11
Uninc. Coconino Co.	47	—	—	—	47
Williams	—	—	—	—	—
GILA COUNTY	47	—	—	—	47
Globe	—	—	—	—	—
Hayden	—	—	—	—	—
Miami	—	—	—	—	—
Payson	14	—	—	—	14
Uninc. Gila Co.	33	—	—	—	33
GRAHAM COUNTY	33	—	—	—	33
Pima	3	—	—	—	3
Safford	8	—	—	—	8
Thatcher	4	—	—	—	4
Uninc. Graham Co.	18	—	—	—	18
GREENLEE COUNTY	1	—	—	—	1
Clifton	—	—	—	—	—
Duncan	—	—	—	—	—
Uninc. Greenlee Co.	1	—	—	—	1
MARICOPA COUNTY	1,362	5	18	52	2,639
Avondale	—	—	4	—	14
Buckeye	—	—	3	—	12
Chandler	123	—	—	—	123
El Mirage	—	—	—	—	—
Gila Bend	—	—	—	—	—
Gilbert	9	—	—	—	9
Glendale	51	—	—	—	51
Goodyear	—	—	—	—	—
Guadalupe	2	—	—	—	2
Mesa	179	1	1	4	442
Paradise Valley	9	—	—	—	9
Peoria	2	—	—	—	2
Phoenix	456	3	3	48	1,411
Scottsdale	139	—	—	—	139
Surprise	—	—	—	—	—
Tempe	44	1	3	—	58
Tolleson	4	—	—	—	4
Uninc. Maricopa Co.	342	—	4	—	361
Wickenburg	2	—	—	—	2
Youngtown	—	—	—	—	—

BUILDING PERMITS ISSUED

CENSUS DIVISION	1* Family	Duplex	3-4 Families	5 or More	Housing Units
MOHAVE COUNTY	267	3	—	1	323
Kingman City	16	—	—	—	16
Kingman Area	36	1	—	—	38
Lake Havasu City	90	—	—	1	140
Lake Havasu Area	19	—	—	—	19
Mohave Valley North	55	2	—	—	59
Mohave Valley South	34	—	—	—	34
Dolan Springs	4	—	—	—	4
Sacramento Valley	10	—	—	—	10
Mohave Co. General	3	—	—	—	3
NAVAJO COUNTY	123	1	—	—	125
Holbrook	2	—	—	—	2
Show Low	12	—	—	—	12
Snowflake	3	—	—	—	3
Taylor	1	—	—	—	1
Uninc. Navajo Co. **	102	1	—	—	104
Winslow	3	—	—	—	3
PIMA COUNTY	603	11	2	12	1,368
Marana	—	—	—	—	—
Oro Valley	—	—	—	—	—
South Tucson	N/R	N/R	N/R	N/R	N/R
Tucson	126	11	2	7	625
Uninc. Pima Co.	477	—	—	5	743
PINAL COUNTY	50	—	—	—	50
Casa Grande	N/R	N/R	N/R	N/R	N/R
Coolidge	1	—	—	—	1
Eloy	—	—	—	—	—
Florence	5	—	—	—	5
Kearny	—	—	—	—	—
Mammoth	1	—	—	—	1
Superior	—	—	—	—	—
Uninc. Pinal Co.	43	—	—	—	43
SANTA CRUZ COUNTY	68	—	—	—	68
Nogales	N/R	N/R	N/R	N/R	N/R
Patagonia	1	—	—	—	1
Uninc. Santa Cruz Co.	67	—	—	—	67
YAVAPAI COUNTY	149	1	1	1	162
Chino Valley	12	1	—	—	14
Clarkdale	3	—	—	—	3
Cottonwood	8	—	—	—	8
Jerome	N/R	N/R	N/R	N/R	N/R
Prescott	21	—	—	1	29
Uninc. Yavapai Co.	105	—	1	—	108
YUMA COUNTY	72	—	—	1	172
Parker	1	—	—	—	1
Somerton	2	—	—	—	2
Uninc. Yuma Co.	37	—	—	—	37
Wellton	1	—	—	—	1
Yuma	31	—	—	1	131
TOTAL, Maricopa Co., September 1979	1,362	5	18	52	2,639
TOTAL, Maricopa Co., September 1978	2,908	2	5	19	4,126
PERCENT CHANGE	-53	150	260	174	-36
TOTAL, Arizona, September 1979	2,936	25	26	67	5,173
TOTAL, Arizona, September 1978	4,496	19	18	26	5,957
PERCENT CHANGE	-35	32	44	158	-13

N/R: No report; data for this month will be combined with data reported for the following month.

*Includes mobile homes.

**Includes August and September data.

Arizona Construction Activity: Quarterly Report

JAY Q. BUTLER

THIRD QUARTER, 1979

The long expected slowdown in Arizona construction activity has become more evident during the third quarter. For Arizona, \$669 million in permits were recorded, which is a 10 percent decrease from the \$747 million recorded in the second quarter. Nevertheless, this figure represents a 9 percent increase over \$612 million of the third quarter in 1978. In Maricopa County, issued permits were valued at \$412 million, which is a 7 percent decrease from the \$444 million of the second quarter, but still represents a 3 percent increase from the \$400 million of a year ago. While the residential sector demonstrated continued decreases in activity, the commercial and industrial sectors continued to produce strong levels of performance. Tables 1 and 2 show the level of permit activity for all construction sectors and housing starts over the last seven quarters.

Although the dollar value of construction activity showed some increases over a year ago, the number of permits in Arizona declined 4 percent from 27,160 to 26,014 and were down 20 percent (32,444 to 26,014) from the second quarter. For Maricopa County, the decline in the permits was even more significant with a 13 percent decrease (15,712 to 13,649) from a year ago and 26 percent decrease (18,509 to 13,649) from the second quarter. Although the third quarter presented a slowdown in activity, the quarter ended before the Federal Reserve Board took action that led to increasing prime and mortgage interest rates and lower availability of mortgage money. Thus, the slowdown is expected to continue through the remainder of 1979 and into the initial quarters of 1980.

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TABLE 1

ARIZONA QUARTERLY HOUSING STARTS BUILDING PERMITS ISSUED

	1 Family	2-3 Duplex	3-4 Families	5 or More	Housing Units
1978					
FIRST QUARTER					
Maricopa County	7,874	129	40	51	10,168
Rest of State	3,786	46	34	26	5,316
Arizona Total	11,660	175	74	77	15,484
SECOND QUARTER					
Maricopa County	8,655	84	34	102	11,430
Rest of State	4,863	43	26	24	6,166
Arizona Total	13,518	127	60	126	17,596
THIRD QUARTER					
Maricopa County	7,966	11	64	96	12,651
Rest of State	4,883	40	35	14	5,632
Arizona Total	12,849	51	99	110	18,193
FOURTH QUARTER					
Maricopa County	8,467	36	61	192	12,102
Rest of State	4,610	28	25	29	5,976
Arizona Total	13,077	64	86	221	18,078
1979					
FIRST QUARTER					
Maricopa County	7,228	17	58	186	10,650
Rest of State	4,481	49	27	16	5,100
Arizona Total	11,790	66	85	202	15,750
SECOND QUARTER					
Maricopa County	8,227	69	110	84	11,944
Rest of State	6,291	30	30	21	7,257
Arizona Total	14,518	99	140	105	19,201
THIRD QUARTER					
Maricopa County	5,019	40	48	177	9,389
Rest of State	5,341	46	34	39	7,621
Arizona Total	10,360	86	82	216	17,010

Source: Compiled from data published in *Arizona Business*, Bureau of Business and Economic Research, College of Business Administration, Arizona State University.

TABLE 2
ARIZONA QUARTERLY BUILDING PERMIT ACTIVITY

		RESIDENTIAL		COMMERCIAL		INDUSTRIAL		OTHER		TOTAL	
		Number of Permits	Dollar Value	Number of Permits	Dollar Value	Number of Permits	Dollar Value	Number of Permits	Dollar Value	Number of Permits	Dollar Value
1978	FIRST QUARTER										
	Maricopa County	9,941	244,029,009	393	83,086,934	104	14,391,317	5,282	49,101,212	15,719	390,608,472
	Rest of State	5,778	93,122,913	346	36,381,460	18	8,154,770	3,436	17,227,321	10,028	154,891,464
	Arizona Total	15,719	337,151,922	739	119,468,394	122	22,551,087	8,718	66,328,533	25,747	545,499,936
	SECOND QUARTER										
	Maricopa County	10,978	258,409,079	432	100,347,823	105	11,001,190	6,439	50,018,906	17,954	419,776,998
	Rest of State	7,902	128,638,132	333	41,628,040	31	11,113,689	3,483	17,113,946	11,749	198,493,807
	Arizona Total	18,880	387,047,211	765	141,975,863	136	22,114,879	9,922	67,132,852	29,703	618,270,805
	THIRD QUARTER										
	Maricopa County	9,692	242,727,495	460	95,403,315	118	13,818,393	5,442	48,016,951	15,712	399,966,154
	Rest of State	8,482	136,183,783	349	40,834,451	16	5,291,097	2,601	29,451,929	11,448	211,761,270
	Arizona Total	18,174	378,911,278	809	136,237,766	134	19,109,490	8,043	77,468,880	27,160	611,727,424
	FOURTH QUARTER										
	Maricopa County	10,421	251,883,633	640	95,174,286	109	10,742,461	4,808	59,036,301	15,978	416,836,681
	Rest of State	8,304	127,696,868	369	49,361,975	21	2,570,703	1,905	18,072,432	10,599	197,701,978
	Arizona Total	18,725	379,580,501	1,009	144,536,261	130	13,313,164	6,713	77,108,733	26,577	614,538,659
1979	FIRST QUARTER										
	Maricopa County	9,519	207,680,328	568	99,325,216	108	13,227,668	5,826	86,687,577	16,021	406,920,789
	Rest of State	8,350	126,721,479	313	33,557,067	32	40,806,011	2,348	23,441,380	11,043	224,525,937
	Arizona Total	17,869	334,401,807	881	132,882,283	140	54,033,679	8,174	110,128,957	27,064	631,446,726
	SECOND QUARTER										
	Maricopa County	10,593	245,886,557	563	107,706,741	114	31,598,095	7,239	58,649,086	18,509	443,840,479
	Rest of State	10,801	177,943,784	413	83,445,863	21	5,166,240	2,300	36,144,970	13,935	302,700,857
	Arizona Total	21,394	423,830,341	976	191,152,604	135	36,764,335	9,539	94,794,056	32,444	746,541,336
	THIRD QUARTER										
	Maricopa County	7,014	163,059,602	564	129,297,596	163	43,106,632	5,908	76,641,388	13,649	412,105,218
	Rest of State	9,030	154,644,619	363	70,701,363	27	3,611,771	2,945	28,231,541	12,365	257,209,094
	Arizona Total	16,044	317,704,221	927	199,998,959	190	46,718,403	8,853	104,872,929	26,014	669,314,312

Source: Compiled from data published in *Arizona Business*, Bureau of Business and Economic Research, College of Business Administration, Arizona State University.

Residential Sector

With ever increasing interest rates and construction costs, the residential sector has shown a definite downward trend over the last few quarters. This trend has been especially evident in Maricopa County where the number of permits declined 28 percent from a year ago (9,692 to 7,014) and were down 34 percent from the second quarter (10,593 to 7,014). Single family activity was down 37 percent (7,966 to 5,019) from a year

ago and down 38 percent (8,227 to 5,019) from the second quarter.

In order to show the trend of increasing interest rates and housing costs, Table 3 reports the average contract interest rate for conventional mortgages and the average purchase price of a new home for the Phoenix metropolitan area and for the nation over the last seven quarters. In the first quarter of 1978, the average price of a conventionally financed new home in the Phoenix metropolitan area was \$58,900 with a contract interest

TABLE 3
AVERAGE TERMS ON
CONVENTIONAL MORTGAGES FOR NEW HOMES

Time		Contract Interest Rate (%)		Purchase Price (\$000)		Loan-To- Price Ratio (%)	
		U.S.	Phoenix	U.S.	Phoenix	U.S.	Phoenix
	1978						
First Quarter		8.97	8.97	58.9	61.3	75.7	74.0
Second Quarter		9.15	9.17	61.3	61.3	75.7	76.7
Third Quarter		9.43	9.51	63.4	71.4	74.9	75.1
Fourth Quarter		9.66	9.80	66.7	67.9	74.6	75.0
	1979						
First Quarter		9.96	10.11	69.4	70.0	74.9	75.8
Second Quarter		10.22	10.26	73.8	73.9	73.9	76.1
Third Quarter		10.65	10.75	76.6	85.2	73.2	74.0

Source: News, Federal Home Loan Bank Board, October 10, 1979.

rate of 8.97 percent and a loan-to-value ratio of 74 percent. Monthly payments, including principal and interest, would have been \$438. By the end of the third quarter of 1979, the price of the average new home had increased to \$85,200 with a contract interest rate of 10.75 percent and a loan-to-value ratio still at 74 percent. The monthly payment would then have been approximately \$700. Increasing costs, a weakening economy, and eroding consumer confidence have interacted to affect the construction of new homes.

Although residential activity decreased in the rest of Arizona, the level of decline was not as great as in Maricopa County. Over a year ago, the number of permits increased 6 percent (8,482 to 9,030), and dollar value increased 14 percent (\$136 million to \$155 million). Relative to the second quarter of 1979, the number of residential permits declined 16 percent (10,801 to 9,030) and dollar value declined 13 percent (\$178 million to \$155 million). Again, good levels of performance in the residential sector were achieved in Mohave and Pima Counties.

Commercial Sector

While the residential sector showed a definite downward trend, the commercial sector has demonstrated continued levels of strong performance. In Maricopa County, the number of permits increased 23 percent (460 to 564) over a year ago and showed no change from the previous quarter. Dollar value in Maricopa County showed a 36 percent increase over a year ago (\$95 million to \$129 million) and a 19 percent increase (\$108 million to \$129 million) over the second quarter of 1979. The main reason for the continued growth of the commercial sector is the active multiunit apartment market. Of the 564 permits, 225 permits were issued for multiunit structures (48 permits for 3 to 4 units and 177 permits for 5 or more units).

Unlike the residential sector, the commercial sector for the rest of the state demonstrated levels of activity below that of Maricopa County. The 363 permits represent a 12 percent decrease from the second quarter (413 permits) and a 9 percent increase (333 permits) from a year ago. The main difference between Maricopa County and the rest of Arizona (except for Pima County) is that the rest of the state has experienced very little activity in the multiunit apartment market.

In Pima County, the activity in the commercial sector is very similar to that shown in Maricopa County with 42 percent of the 110 permits for the multiunit apartment market (down from 118 in the second quar-

ter and 121 a year ago). It appears that development interest in the apartment market has resumed in the more populous counties of Arizona to provide relatively inexpensive shelter for their growing populations.

Industrial and Other Sectors

The industrial sector in Maricopa County demonstrated continued strength with the issuance of 163 permits valued at over \$43 million. The number of permits increased 38 percent from a year ago (up by 118 permits) and 42 percent over the second quarter (up by 114 permits). Because several large projects were begun, the dollar value showed a 212 percent increase over a year ago (\$138 million) and a 34 percent increase over the second quarter (\$32 million). The leading areas for industrial development were the cities of Phoenix, Tempe, and Chandler. In Chandler three permits were issued in September with a total value over \$11 million. The remainder of the state showed a very stable level of industrial development activity with 27 permits worth over \$3.5 million compared to the 21 permits — \$5.1 million — in the second quarter and 16 permits — \$5.3 million — of a year ago.

Public development, especially in school construction, led the 33 percent increase in dollar value over the second quarter in Maricopa County (5,908 permits were down from the 7,239 permits). For the rest of the state, the number of permits increased from 2,700 permits to 2,945 but dollar value declined from \$36 million to \$28 million. As the general construction activity declines, the activity in the public sector becomes very important as an economic support for the construction industry.

LOOKING AHEAD

The construction industry is an integral part of the economy in Maricopa County and Arizona. Thus, there is great interest concerning the levels of activity for the next year. Although the commercial and industrial demonstrated good levels of performance, they have historically followed the trend established by the residential sector. With the increasing costs for a limited supply of financing, slowdowns in these sectors should begin to appear in the fourth quarter of 1979 or in the first quarter of 1980.

The length and depth of the construction slowdown is dependent upon the impact of several factors. By the time this article appears, the Arizona legislature will have made a decision about raising the usury rate above 12 percent. It is expected that the rate will be raised,

which should make residential mortgage money available but at interest rates in excess of 12 percent. The second factor will be the length of time that the current Federal Reserve policy is in effect. The longer the policy is in effect, the greater is the potential impact on construction activity. The final factor will be the relative strength of the local and national economies.

At present, it is very difficult to develop reasoned conclusions about the future when there is disagreement about the present — whether or not there is a recession. Based on available information, a very definite slowdown in construction activity must be ex-

pected to last well into 1980. It should, however, not be as severe as the previous downturn (1974-1975) because of the expanding economic base of Arizona and especially Maricopa County.

The events of the last few months can be viewed as a prelude to the 1980s when Arizona and Maricopa County will be experiencing tremendous levels of growth in an era of limited and expensive resources of money and energy. Thus, the construction industry will be confronted with many challenges to profitably supply the demands of a growing economy and population.

Arizona New Housing Starts: Quarterly Report

THIRD QUARTER, 1979

BUILDING PERMITS ISSUED

CENSUS DIVISION	1* Family	Duplex	3-4 Families	5 or More	Housing Units
APACHE COUNTY	58	—	—	—	58
Eagar	14	—	—	—	14
St. Johns	24	—	—	—	24
Springerville	2	—	—	—	2
Uninc. Apache Co.	18	—	—	—	18
COCHISE COUNTY	245	—	—	—	245
Benson	7	—	—	—	7
Bisbee	—	—	—	—	—
Douglas	10	—	—	—	10
Huachuca City	—	—	—	—	—
Sierra Vista	102	—	—	—	102
Tombstone	1	—	—	—	1
Uninc. Cochise Co.	121	—	—	—	121
Willcox	4	—	—	—	4
COCONINO COUNTY	352	4	5	2	422
Flagstaff	119	4	5	—	143
Fredonia	2	—	—	—	2
Page	21	—	—	—	21
Uninc. Coconino Co.	210	—	—	1	231
Williams	—	—	—	1	25
GILA COUNTY	178	—	—	—	178
Globe	8	—	—	—	8
Hayden	1	—	—	—	1
Miami	1	—	—	—	1
Payson	53	—	—	—	53
Uninc. Gila Co.	115	—	—	—	115
GRAHAM COUNTY	86	—	—	—	86
Pima	7	—	—	—	7
Safford	21	—	—	—	21
Thatcher	10	—	—	—	10
Uninc. Graham Co.	48	—	—	—	48
GREENLEE COUNTY	1	—	—	—	1
Clifton	—	—	—	—	—
Duncan	—	—	—	—	—
Uninc. Greenlee Co.	1	—	—	—	1
MARICOPA COUNTY	5,019	40	48	177	9,389
Avondale	10	—	6	7	78
Buckeye	2	—	3	—	14
Chandler	495	6	1	—	511
El Mirage	—	—	—	—	—
Gila Bend	2	—	—	—	2
Gilbert	26	—	—	—	26
Glendale	232	—	—	—	232
Goodyear	—	—	—	—	—
Guadalupe	11	—	—	—	11
Mesa	550	14	20	26	1,766
Paradise Valley	19	—	—	—	19
Peoria	92	12	—	—	116
Phoenix	1,543	5	8	81	4,115
Scottsdale	457	—	—	2	469
Surprise	2	—	—	—	2
Tempe	146	3	3	53	482
Tolleson	11	—	—	—	11
Uninc. Maricopa Co.	1,407	—	7	7	1,496
Wickenburg	6	—	—	1	31
Youngtown	8	—	—	—	8

BUILDING PERMITS ISSUED

CENSUS DIVISION	1* Family	Duplex	3-4 Families	5 or More	Housing Units
MOHAVE COUNTY	682	3	—	3	750
Kingman City	65	—	—	—	65
Kingman Area	84	1	—	—	86
Lake Havasu City	241	—	—	3	303
Lake Havasu Area	34	—	—	—	34
Mohave Valley North	138	2	—	—	142
Mohave Valley South	81	—	—	—	81
Dolan Springs	13	—	—	—	13
Sacramento Valley	18	—	—	—	18
Mohave County General	8	—	—	—	8
NAVAJO COUNTY	273	2	—	—	277
Holbrook	7	—	—	—	7
Show Low	34	—	—	—	34
Snowflake	8	—	—	—	8
Taylor	7	—	—	—	7
Uninc. Navajo Co.	209	2	—	—	213
Winslow	8	—	—	—	8
PIMA COUNTY	2,488	36	17	29	4,358
Marana	1	—	—	—	1
Oro Valley	2	—	—	—	2
South Tucson	1	—	—	—	1
Tucson	370	36	7	16	1,474
Uninc. Pima Co.	2,114	—	10	13	2,880
PINAL COUNTY	201	—	—	—	201
Casa Grande	4	—	—	—	4
Coolidge	3	—	—	—	3
Eloy	3	—	—	—	3
Florence	9	—	—	—	9
Kearny	—	—	—	—	—
Mammoth	1	—	—	—	1
Superior	1	—	—	—	1
Uninc. Pinal Co.	180	—	—	—	180
SANTA CRUZ COUNTY	89	—	—	—	89
Nogales	N/R	N/R	N/R	N/R	N/R
Patagonia	1	—	—	—	1
Uninc. Santa Cruz Co.	88	—	—	—	88
YAVAPAI COUNTY	484	1	3	1	505
Chino Valley	28	1	—	—	30
Clarkdale	5	—	—	—	5
Cottonwood	26	—	—	—	26
Jerome	—	—	—	—	—
Prescott	56	—	2	1	72
Uninc. Yavapai Co.	369	—	1	—	372
YUMA COUNTY	204	—	9	4	451
Parker	3	—	—	—	3
Somerton	14	—	—	—	14
Uninc. Yuma Co.	80	—	—	—	80
Wellton	1	—	—	—	1
Yuma	106	—	9	4	353
TOTAL, Maricopa Co., Third Quarter 1979	5,019	40	48	177	9,389
TOTAL, Maricopa Co., Third Quarter 1978	7,966	11	64	96	12,651
PERCENT CHANGE	-37	264	-25	84	-26
TOTAL, Arizona, Third Quarter 1979	10,360	86	82	216	17,010
TOTAL, Arizona, Third Quarter 1978	12,849	51	99	110	18,193
PERCENT CHANGE	-19	69	-17	96	-7

N/R: No report; data for this month will be combined with data reported for the following month.
*Includes mobile homes.

THIRD QUARTER, 1979

Arizona Building Permits: Quarterly Report

	RESIDENTIAL			COMMERCIAL			INDUSTRIAL			OTHER			TOTAL		
	Number of Permits	Dollar Value		Number of Permits	Dollar Value		Number of Permits	Dollar Value		Number of Permits	Dollar Value		Number of Permits	Dollar Value	
CENSUS DIVISION															
APACHE COUNTY															
Eagar	66	827,410		8	452,000		—	—		8	20,600		82	1,300,010	
St. Johns	14	584,000		2	452,000		—	—		4	15,000		20	1,051,000	
Springerville	30	N/C		2	N/C		—	—		2	N/C		34	N/C	
Unincorporated Apache County	4	N/C		4	N/C		—	—		—	—		8	N/C	
COCHISE COUNTY															
Benson	18	243,410		16	2,400,350		—	—		2	5,600		20	249,010	
Bisbee	496	8,290,994		—	—		4	23,600		284	1,470,699		800	12,185,643	
Douglas	15	192,150		—	—		1	10,000		15	23,631		31	225,781	
Huachuca City	86	101,028		1	10,000		—	—		2	91,800		89	202,828	
Sierra Vista	54	620,345		3	46,550		—	—		44	336,813		101	1,003,708	
Unincorporated Cochise County	7	6,038		—	—		—	—		1	100		8	6,138	
Tombstone	183	3,908,768		5	1,486,500		—	—		161	274,153		349	5,669,421	
Unincorporated Cochise County	1	58,000		—	—		—	—		—	—		1	58,000	
Willcox	136	3,291,965		5	577,300		—	—		51	705,702		192	4,574,967	
COCONINO COUNTY															
Flagstaff	14	112,700		2	280,000		3	13,600		10	38,500		29	444,800	
Page	500	13,499,584		61	8,812,025		2	192,000		203	2,108,295		766	24,611,904	
Unincorporated Coconino County	157	6,962,792		49	7,981,495		2	192,000		93	818,877		301	15,955,164	
Williams	2	72,000		—	—		—	—		4	2,000		6	74,000	
GILA COUNTY															
Globe	35	1,012,170		1	70,000		—	—		3	7,000		39	1,089,170	
Hayden	299	5,429,724		11	760,530		—	—		77	520,643		387	6,710,897	
Unincorporated Gila County	7	22,898		—	—		—	—		26	759,775		33	782,673	
Miami	287	3,809,077		3	259,175		1	25,000		97	1,040,683		388	5,133,935	
Payson	23	242,000		—	—		—	—		9	16,509		32	258,509	
Unincorporated Gila County	5	35,400		—	—		—	—		4	4,811		9	40,211	
Pima	8	67,073		—	—		—	—		6	139,596		14	206,669	
Safford	85	823,353		3	259,175		—	—		54	225,913		142	1,308,441	
Thatcher	166	2,641,251		—	—		1	25,000		24	633,854		191	3,320,105	
Unincorporated Graham County	152	1,999,717		16	166,300		—	—		19	56,945		187	2,222,962	
GRAHAM COUNTY															
Clifton	7	115,200		—	—		—	—		—	—		7	115,200	
Duncan	51	586,725		9	52,900		—	—		18	44,945		78	684,570	
Unincorporated Graham County	30	429,100		—	—		—	—		1	12,000		31	441,100	
GREENLEE COUNTY															
Clifton	64	868,092		7	113,400		—	—		1	100,002		71	982,092	
Duncan	2	23,000		—	—		—	—		—	—		3	123,002	
Unincorporated Greenlee County	1	8,000		—	—		—	—		1	100,002		2	108,002	
MARICOPA COUNTY															
Avondale	1	15,000		—	—		—	—		—	—		1	15,000	
Buckeye	7,014	163,059,602		564	129,297,596		163	43,106,632		5,908	76,641,388		13,649	412,105,218	
Chandler	14	245,156		14	1,684,600		—	—		20	52,185		48	1,981,941	
El Mirage	6	53,100		4	240,000		—	—		9	179,441		19	472,541	
Gila Bend	550	9,040,160		1	55,000		12	14,520,078		391	919,976		954	24,535,214	
Gilbert	—	—		—	—		—	—		—	—		—	—	
Glendale	2	52,500		—	—		—	—		1	500		3	53,000	
Goodyear	47	895,426		3	9,065		2	37,200		63	213,808		115	1,155,499	
Guadalupe	378	8,415,580		33	2,183,800		1	37,000		747	1,696,975		1,159	12,333,355	
Mesa	—	—		2	240,000		—	—		45	492,640		47	732,640	
Paradise Valley	17	158,696		—	—		—	—		1	3,000		18	161,696	
Phoenix	687	10,458,108		109	27,625,794		5	201,000		822	23,079,155		1,623	61,364,057	
Scottsdale	29	1,852,813		2	134,000		—	—		70	568,111		101	2,554,924	
Surprise	140	2,741,976		2	209,612		—	—		127	321,441		269	3,273,029	
Tempe	2,317	66,991,947		197	73,012,521		69	20,810,254		2,484	39,654,042		5,067	200,468,764	
Tolleson	636	19,668,186		34	8,401,761		—	—		892	4,429,829		1,562	32,499,776	
Unincorporated Maricopa County	8	22,250		—	—		—	—		8	2,515		16	24,765	
Wickenburg	308	5,393,350		81	6,412,900		74	7,501,100		179	3,547,600		642	22,854,950	
Youngtown	18	239,700		1	12,000		—	—		17	7,526		36	259,226	
	1,779	36,429,405		79	7,287,540		—	—		18	902,000		1,876	44,618,945	
	21	176,631		1	779,905		—	—		8	560,789		30	1,517,325	
	57	224,618		1	1,009,098		—	—		6	9,855		64	1,243,571	

Arizona Building Permits: Quarterly Report (Continued)

	RESIDENTIAL			COMMERCIAL			INDUSTRIAL			OTHER			TOTAL		
	Number of Permits	Dollar Value	Number of Permits	Dollar Value	Number of Permits	Dollar Value	Number of Permits	Dollar Value	Number of Permits	Dollar Value	Number of Permits	Dollar Value	Number of Permits	Dollar Value	Dollar Value
MOHAVE COUNTY	1,534	17,037,799	62	5,993,083	—	—	—	—	—	—	—	—	1,749	23,599,077	—
Kingman City	112	1,166,988	10	237,878	—	—	—	—	—	—	—	—	166	1,568,678	—
Kingman Area	234	1,565,015	8	2,574,829	—	—	—	—	—	—	—	—	249	4,150,224	—
Lake Havasu City	265	7,670,323	26	2,103,482	—	—	—	—	—	—	—	—	348	10,114,138	—
Lake Havasu Area	87	542,318	—	—	—	—	—	—	—	—	—	—	87	542,318	—
Mohave Valley North	500	3,474,516	8	818,154	—	—	—	—	—	—	—	—	545	4,304,966	—
Mohave Valley South	220	1,688,292	4	127,124	—	—	—	—	—	—	—	—	229	1,841,016	—
Dolan Springs	47	276,828	3	83,472	—	—	—	—	—	—	—	—	50	324,972	—
Sacramento Valley	53	380,375	3	83,472	—	—	—	—	—	—	—	—	58	464,631	—
Mohave County General	16	273,134	—	—	—	—	—	—	—	—	—	—	17	288,134	—
NAVAJO COUNTY	478	8,514,952	11	370,968	—	—	—	—	—	—	—	—	1,030	8,990,490	—
Holbrook	18	329,500	3	66,000	—	—	—	—	—	—	—	—	21	395,500	—
Show Low	43	561,592	1	N/C	—	—	—	—	—	—	—	—	580	609,242	—
Snowflake	9	231,500	1	N/C	—	—	—	—	—	—	—	—	10	N/C	—
Taylor	11	7,046,440	6	299,968	—	—	—	—	—	—	—	—	11	231,500	—
Unincorporated Navajo County	358	345,920	110	43,999,794	—	—	—	—	—	—	—	—	365	7,402,128	—
Winslow	39	73,672,966	—	—	—	—	—	—	—	—	—	—	43	352,120	—
PIMA COUNTY	4,050	213,375	—	—	—	—	—	—	—	—	—	—	5,329	139,997,804	—
Marana	2	11,000	—	—	—	—	—	—	—	—	—	—	3	N/C	—
Oro Valley	13	14,279,293	61	28,656,584	—	—	—	—	—	—	—	—	13	213,375	—
South Tucson	2	59,169,298	49	15,343,210	—	—	—	—	—	—	—	—	3	11,000	—
Tucson	803	2,316,622	9	922,305	—	—	—	—	—	—	—	—	1,672	61,959,691	—
Unincorporated Pima County	3,230	108,075	—	—	—	—	—	—	—	—	—	—	3,638	77,813,738	—
PINAL COUNTY	305	96,851	3	6,500	—	—	—	—	—	—	—	—	402	3,513,520	—
Casa Grande	9	135,740	1	62,805	—	—	—	—	—	—	—	—	16	142,175	—
Coolidge	41	182,375	—	—	—	—	—	—	—	—	—	—	50	116,251	—
Eloy	15	2,600	—	—	—	—	—	—	—	—	—	—	20	222,479	—
Florence	11	1,500	—	—	—	—	—	—	—	—	—	—	23	227,720	—
Kearny	4	1,789,481	—	—	—	—	—	—	—	—	—	—	8	64,400	—
Mammoth	1	2,403,778	—	—	—	—	—	—	—	—	—	—	1	N/C	—
Superior	4	5,186	—	—	—	—	—	—	—	—	—	—	4	1,500	—
Unincorporated Pinal County	220	2,398,592	4	841,000	—	—	—	—	—	—	—	—	280	2,738,995	—
SANTA CRUZ COUNTY	96	15,548,565	4	47,500	—	—	—	—	—	—	—	—	25	112,355	—
Nogales	N/R	2,403,778	N/R	N/R	—	—	—	—	—	—	—	—	N/R	2,888,633	—
Patagonia	2	5,186	—	—	—	—	—	—	—	—	—	—	N/R	N/R	—
Unincorporated Santa Cruz County	94	2,398,592	3	17,500	—	—	—	—	—	—	—	—	3	22,686	—
YAVAPAI COUNTY	714	15,548,565	3	10,000	—	—	—	—	—	—	—	—	124	2,865,947	—
Chino Valley	39	555,289	25	2,697,993	—	—	—	—	—	—	—	—	970	19,570,904	—
Clarkdale	7	254,350	1	800	—	—	—	—	—	—	—	—	56	683,299	—
Cottonwood	58	616,268	6	131,500	—	—	—	—	—	—	—	—	2	267,850	—
Jerome	—	1,932,494	—	—	—	—	—	—	—	—	—	—	10	821,317	—
Prescott	123	12,190,164	8	2,311,193	—	—	—	—	—	—	—	—	261	5,001,460	—
Unincorporated Yavapai County	487	6,700,155	10	254,500	—	—	—	—	—	—	—	—	568	12,796,978	—
YUMA COUNTY	350	104,403	38	4,579,870	—	—	—	—	—	—	—	—	532	13,071,210	—
Parker	8	514,500	2	144,000	—	—	—	—	—	—	—	—	17	304,969	—
Somerton	15	2,542,244	2	96,316	—	—	—	—	—	—	—	—	21	615,316	—
Unincorporated Yuma County	162	2,41,000	11	307,049	—	—	—	—	—	—	—	—	219	3,989,434	—
Wellton	2	3,498,008	23	4,032,505	—	—	—	—	—	—	—	—	2	41,000	—
Yuma	163	163,059,602	564	129,297,596	—	—	—	—	—	—	—	—	273	8,120,491	—
TOTAL Maricopa County	7,014	242,727,495	460	95,403,315	—	—	—	—	—	—	—	—	13,649	412,105,218	—
Third Quarter 1979	9,692	242,727,495	460	95,403,315	—	—	—	—	—	—	—	—	15,712	399,966,154	—
TOTAL Maricopa County	—28	—33	23	36	—	—	—	—	—	—	—	—	—13	3	—
PERCENT CHANGE	16,044	317,704,221	927	199,998,959	—	—	—	—	—	—	—	—	26,014	669,314,312	—
TOTAL Arizona	18,174	378,911,278	809	136,237,766	—	—	—	—	—	—	—	—	27,160	611,727,414	—
Third Quarter 1978	—12	—16	15	47	—	—	—	—	—	—	—	—	35	9	—
PERCENT CHANGE	N/C	N/C	N/C	N/C	—	—	—	—	—	—	—	—	—4	—	—

N/C: Not collected. N/R: No report, data for this month will be combined with data reported for the following month.

*Includes mobile homes.

Maricopa County Monthly Retail Food Prices

OCTOBER

This monthly feature of *Arizona Business* contains food price data for Maricopa County for comparison with data for the United States and selected metropolitan areas. Maricopa County food prices are reported for the month immediately preceding publication; comparisons of food prices among various cities and the U.S. average are made on the basis of earlier months because of the lag in collecting price reports from these other areas.

INTERPRETATION

During October, the Maricopa County index of Food Consumed at Home rose 1.4 percent. This increase, the largest since April, 1979, follows a 0.4 percent gain in September. The October index value of 225.0 indicates that county shoppers had to pay \$22.50 for a similar basket of foodstuffs that would have cost \$10.00 in 1967. This food basket could have been purchased for \$20.53 one year ago.

The October increase was due to gains in the subgroups *Other Foods* (2.4 percent), *Dairy Products* (1.7 percent), *Meats, Poultry, Fish and Eggs* (1.6 percent), and *Cereals and Bakery Products* (0.3 percent), which dominated the decrease in the subgroup *Fruits and Vegetables* (-0.3 percent).

The increased index for *Other Foods* was largely due

to higher prices for cola drinks (9.8 percent), margarine (4.4 percent), and nuts, potato chips, and other snacks (4.2 percent), which more than offset declines recorded for roasted coffee (-1.5 percent) and canned, packaged soup (-0.6 percent). Gains in fresh milk and cream (6.2 percent), cheese (2.1 percent), and butter (0.9 percent) led to the jump in the subgroup *Dairy Products*.

Higher recorded prices for most beef items, particularly roast other than chuck and round (9.6 percent), ground beef (6.1 percent), and sirloin steak (4.6 percent) contributed to the rise in the subgroup *Meats, Poultry, Fish, and Eggs*. Pork and fish prices were also up, notably sausage (7.3 percent), ham other than canned (6.3 percent), and fresh and frozen fish and shellfish (3.9 percent). These increases were partially countered by decreases for fresh whole chicken (-11.2 percent) and eggs (-6.3 percent). The change in the subgroup *Cereals and Bakery Products* was caused by increases in fresh biscuits, rolls, and muffins (5.0 percent), cookies (2.7 percent), and crackers and stuffing (2.4 percent). Seasonal variations in the price of fresh produce accounted for the decline in the subgroup *Fruits and Vegetables*. Apples (-22.0 percent), bananas (-7.9 percent), and oranges (-6.8 percent) exhibited the largest decreases while the price of lettuce (30.4 percent) increased the most.

A comparison of the July Food Consumed at Home Index for Maricopa County with index values for four selected metropolitan areas reveals that the outlays required to purchase a foodstuffs group in July, 1979 (obtainable for an outlay of \$10.00 at 1967 average prices) were \$22.28 in Maricopa County; \$22.90 in Los Angeles-Long Beach; \$23.81 in San Francisco-Oakland; \$23.67 in Chicago-Northwestern Indiana; and \$23.55 in the United States (average).

TABLE 1
INDEX FOR FOOD CONSUMED AT HOME
Maricopa County, United States, and Selected Metropolitan Areas
(Average 1967 = 100 percent)

Group	Maricopa County Oct. '79	Maricopa County July '79	United States July '79	Los Angeles- Long Beach July '79	San Francisco- Oakland July '79	Chicago- North- western Indiana July '79
Food Consumed at Home	225.0	222.8	235.5	229.0	238.1	236.7
Cereals and Bakery Products	210.2	202.8	220.1	223.2	218.7	219.1
Meats, Poultry, Fish, and Eggs	237.6	247.8	239.0	237.9	246.4	243.3
Dairy Products	200.3	194.1	206.3	193.7	196.9	203.7
Fruits and Vegetables	204.0	207.9	238.1	216.0	242.6	241.5
Other Foods Consumed at Home	247.0	233.7	269.5	261.1	278.7	274.4

* Computed from data contained in The Consumer Price Index, U.S. Department of Labor, Bureau of Labor Statistics, Washington, D.C.

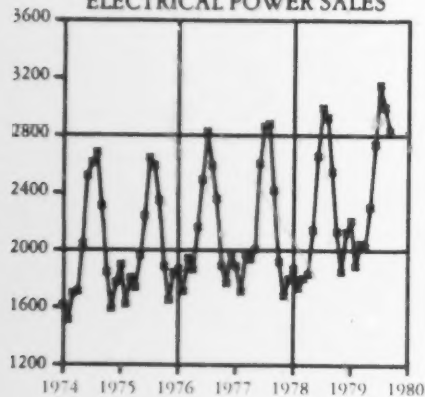
Note: Index Comparisons between Maricopa County and the other regions show only that food prices in Maricopa County have increased more or less than food prices in the other regions since 1967. The indices cannot be used to determine the actual differences in food price levels between the regions.

Sources: Bureau of Business and Economic Research, College of Business Administration, Arizona State University, in cooperative cosponsorship with Valley National Bank.

Arizona Economic Indicators

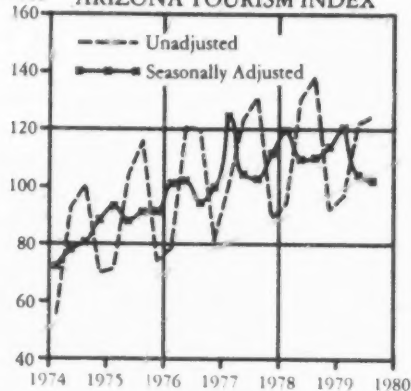
Millions
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ELECTRICAL POWER SALES

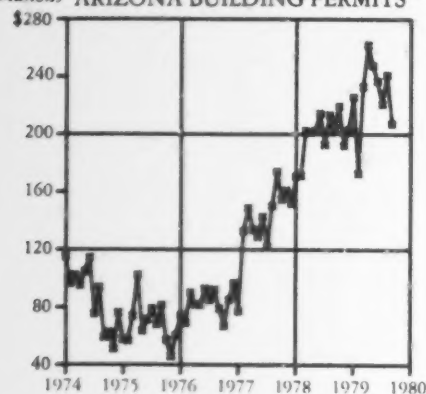


1976 = 100

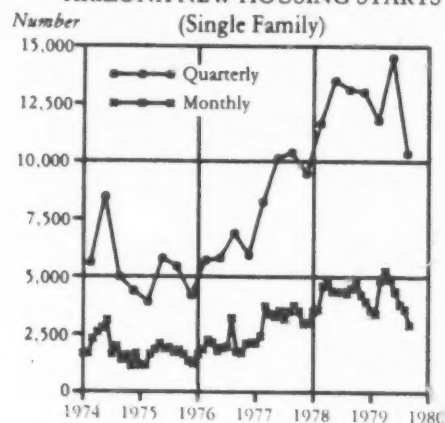
ARIZONA TOURISM INDEX



ARIZONA BUILDING PERMITS

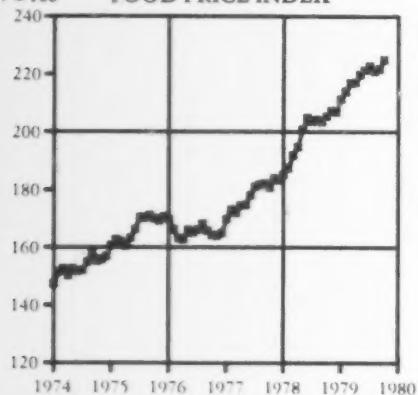


ARIZONA NEW HOUSING STARTS (Single Family)



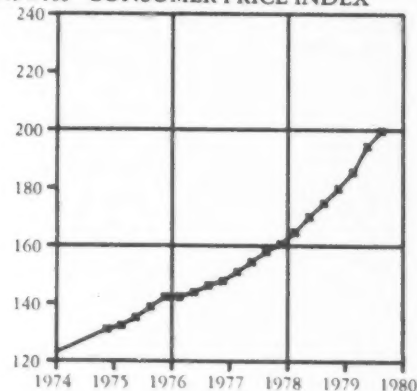
1967 = 100

METROPOLITAN PHOENIX FOOD PRICE INDEX



1969 = 100

METROPOLITAN PHOENIX CONSUMER PRICE INDEX



Source: All data compiled by the Bureau of Business and Economic Research, College of Business Administration, Arizona State University.